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INSTITUTE FOR DEFENSE ANALYSES

Knowledgebase for Enterprise Integration

Paul F. Goree, Project Leader
Christopher L. Chubb
Dale E. Lichtblau
Glen R. White

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PREFACE

This document was prepared by the Institute for Defense Analyses (IDA) for the Defense Information Systems Agency under a task entitled "Migration (Tree) and Enterprise Integraton Process Documentation Support." Part of the task's objective was to document the baseline integration process used for selecting and implementing DoD migration applications and embed the knowledgebase of information on how to execute the process into the Process Management Tool for use by managers. This document contains the text of the Perform Enterprise Integration knowledgebase.

This work was reviewed within IDA by Audrey A. Hook and Bruce N. Angier.

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EXECUTIVE SUMMARY

Enterprise integration (EI) is the process of harnessing diverse organizational resources into an optimized whole to achieve the goals and missions of the enterprise. EI is one of the key strategies for meeting the formidable challenges the Department of Defense (DoD) faces as it moves towards the 21st century. The success of this strategy depends on the skills, talents, and knowledge of the many individual DoD managers tasked with its execution. IDA developed a Process Management Tool (PMT) to provide automated assistance to DoD managers in the management of DoD EI processes. To assist in the critically important EI process management, IDA developed a detailed EI-process knowledgebase to supplement the knowledge of individual DoD process managers assigned to the EI process. This knowledgebase is available in a readily accessible and useable form in the PMT. This document is a text extract of the enterprise integration knowledgebase.

The EI knowledgebase that the PMT automates consists of two major, closely integrated components: a work breakdown structure (WBS) and a set of references. The WBS is a hierarchically structured (and decomposable) set of activities and tasks that comprise the process. Associated with each activity is a set of inputs, controls, outputs, and mechanisms, collectively called ICOMs. The set of references is intended to provide the detailed why and how for each activity or task of the process. In many cases, relevant reference material is provided for some of the various ICOMs associated with the activity.

This document includes the knowledgebase for only the Perform Enterprise Integration process, which is one of six major activities that compose the overall Optimize DoD Functions process. It reflects the authors' experience with two migration system selection and implementation projects, primarily for the transportation and finance functional areas. It incorporates as much relevant material as possible from the many previous efforts to describe and explain DoD's EI initiative. The overall structure was derived from the DoD document Enterprise Integration Implementing Strategy. Other important sources we relied upon are found among the references throughout the text of the knowledgebase.

I. OVERVIEW

This document contains a text extract from the enterprise integration knowledgebase that has been incorporated into an automated tool to support Department of Defense (DoD) process management. The tool is called the Process Management Tool (PMT) and was designed to facilitate process management in DoD by providing an automated facility to enable a process manager to easily access a useful body of existing knowledge about some major process. This document represents a body of knowledge for one of the more important processes that has emerged in recent years within the DoD, namely enterprise integration (EI). The unabashed goal of the EI process is to improve DoD mission effectiveness by strengthening inter-Service interoperability and sustaining mission efficiency in the face of continual budget constraints.

The knowledgebase that the PMT automates consists of two major, closely integrated components: a work breakdown structure (WBS) and a set of references. The WBS is a hierarchically structured (and decomposable) set of activities and tasks that comprise the process. It is based on DoD-standard Integrated Definition (IDEF0) modeling principles. Associated with each activity is a set of inputs, controls, outputs, and mechanisms, collectively called ICOMs.

The set of references is intended to provide the detailed why and how for each activity or task of the process. In many cases, relevant reference material is provided for some of the various ICOMs associated with the activity.

The power of the PMT lies in the facility it affords the process manager to access the expert knowledge needed to effectively manage a given DoD process. The PMT user can quickly and almost effortlessly decompose any higher level activity of a process and examine its constituent parts or subactivities. By reviewing the description of the activity or examining the set of ICOMs associated with the activity, the process manager can quickly learn what needs to be done at each phase of the process being managed. Most activities also have a set of collateral references that can provide extensive background information that is directly useful in managing the process. Although most of this supplementary reference material is linked directly to the activity, in some cases there is reference material associated with a particular ICOM.

Figure I-1 is a graphical representation of the structure of the knowledgebase contained in this document. As depicted in the figure, the overall process that the PMT is designed to help with is the Optimize DoD Functions process. This document includes one of the six major activities under that process. The six major activities are:

- A1—Perform Strategic Planning
- A2—Develop Programs & Budgets
- A3—Perform Enterprise Integration
- A4—Engineer Functions
- A5—Manage Change
- A6—Evaluate Performance

While the emphasis of the knowledgebase is limited to migration system selection and implementation, we thought it necessary to place the migration systems process within an overall context of information systems integration, and this within a larger context of information management integration. The integration of information management processes is one major element of a larger and more ambitious enterprise integration initiative. Enterprise integration consists then of five major activities:

- Integrate Values, Missions, Visions, Goals, Objectives, Measures of Performance, and Programs
- Integrate Business Processes
- Integrate Information Management Processes
- Integrate People and Organizational Structures
- Integrate Financial Resources

The Integrate Information Management Processes consists of three important subprocesses:

- Standardize Data Elements
- Standardize and Integrate Information Systems (IS) Environment
- Develop and Implement Standard IS Architecture

The first (data element standardization) is the often tedious process of first identifying data elements that are common to two or more information systems and then reconciling their semantics (i.e., their format, edit criteria, allowable values, precision, data-element names, etc.). Ideally, data element standardization is undertaken after each functional activity has implemented its near-term suite of migration (or standard) information systems. But the task can be pursued independently of the migration system

selection and implementation process as well. The third major activity under the Integrate Information Management Processes heading is aimed at the long-term implementation of an open, standards-based common operating environment (COE). The details of that process have yet to be developed; thus, it is premature to try to document a "COE Implementation" process in any significant detail in the PMT.

This document focuses primarily on the second of the subprocesses concerned with information management integration. It reflects the authors' experience with two migration system selection and implementation projects, primarily for the transportation and finance functional areas. It incorporates as much relevant material as possible from the many previous efforts to describe and explain DoD's enterprise integration initiative. The overall structure of the Integrate Information Management Processes was derived from the DoD document "Enterprise Integration Implementing Strategy." We made extensive use of two other important documents: "EI Guide," DISA, April 1995; and "Framework for Managing Process Improvement," Department of Defense, December 15, 1994. Other important sources we relied upon can be found as "references" throughout the knowledgebase document.

The next chapter is a depth-first representation of the Perform Enterprise Integration (A3) knowledgebase that is randomly and conveniently accessible via the PMT. Each process activity has a general description, references, and ICOMs. The general description outlines the purpose of the activity and provides a short explanation of the task to be performed. Following the activity description, in many cases, is a set of references. These references may take one of several forms: formal documents (e.g., official memoranda, directives), guidance, bibliographies, lessons learned, keys to success, barriers, and so forth. In many instances, these references are given as a Uniform Resource Locator (URL) to a World Wide Web site that maintains the referenced document in an HTML format. Each reference also has a short description provided in a field labeled "Memo."

As noted previously, a set of ICOMs is associated with each activity of the process. Each ICOM also carries a description and references, if any are associated with the ICOM. Most activities have at least one input, output, control, and mechanism. In many cases there are several, and in a few cases an activity may not have any inputs. In such cases it will probably have a control that serves as the activity's trigger. In some instances, an activity will devolve into a set of tasks or terminal activities for which no further decomposition is appropriate. Generally, these tasks are those discrete activities

that can be assigned to a single person. They do not have a separate set of ICOMs but rather inherit those of their "parents."

The Perform Enterprise Integration knowledgebase adheres to the basic IDEF0 conventions for activity modeling. Each decomposable activity is decomposed into no more than six subactivities. Each ICOM of an activity must appear on the decomposition page of the decomposed activities unless explicitly "tunneled" at the higher level. ICOMs that have been tunneled at some higher level may reappear at a lower level when it seems appropriate to call attention to a role they play at that lower level. ICOMs may themselves decompose into constituent parts or "children." And ICOM constituents may reconstitute themselves into the parent ICOM within the overall model. These complexities of the IDEF0 modeling process are hard to follow within a linear structure such as the present document. Accordingly, we have provided the complete Perform Enterprise Integration activity model in IDEF0 graphical form in an appendix to this document.

II. THE KNOWLEDGEBASE

A1 PERFORM STRATEGIC PLANNING

A2 DEVELOP PROGRAMS & BUDGETS

A3 PERFORM ENTERPRISE INTEGRATION

Description

Enterprise Integration (EI) is a systematic process for removing functional and technical barriers within an organization, and leveraging all available capabilities to achieve an organization's objectives. Enterprise Integration provides the strategies and solutions for end-to-end functional processes, shared data, and common or interoperable information systems that result in the highest degree of mission effectiveness and resource efficiency. There are five major activities or processes associated with the enterprise integration initiative:

- Integration of the values, missions, visions, goals, objectives, measures of performance, and programs of organizational components of the enterprise
- Integration of the business (or functional) processes of the enterprise
- Integration of the information management processes of the enterprise
- Integration of the human resources and organizational structures of the enterprise
- Integration of the financial resources of the enterprise

References

Formal Document: <http://www.dtic.dla.mil/c3i/ei.html>

Memo: DEPSECDEF Memorandum, 6 April 1994: Management Structure for the Accelerated Implementation of Migration Systems, Data Standards, and Process Improvement with Charters. Establishes the Enterprise Integration Executive Board and supporting Enterprise Integration Corporate Management Council.

Formal Document: <http://www.dtic.dla.mil/c3i/prefacen.html>

Memo: Preface to Corporate Information Management for the 21st Century, June 1994, Center for Integration & Interoperability, Defense Information Systems Agency, U.S. Department of Defense.

Formal Document: <http://www.dtic.dla.mil/c3i/cp4toc.html>

Memo: DoD Corporate Information Management Strategic Plan, June 1994, Center for Integration & Interoperability, Defense Information Systems Agency, U.S. Department of Defense.

Guidelines: <http://www.disa.mil/07/onlnpubs/eighome.html>

Memo: This document contains a good, comprehensive list and description of the products and services available from DISA for managing the EI process.

Inputs

Non-Integrated Enterprise

Description: A non-integrated enterprise is one in which organizational components are focused on a specific business process with too little regard for or awareness of the activities of the organizational components that surround them. In such an organization numerous, redundant, and inoperable automated information systems are widespread. The systems do not share common data and, collectively, are expensive to maintain.

Controls

DoD Enterprise Model

Description: The DoD Enterprise Model provides a framework or context for assuring that unrelated process improvement projects produce results that are consistent with the corporate view of processes and data entities. The Enterprise Model itself is derived from the DoD mission statement.

References

Formal Document: <http://www.dtic.dla.mil/c3i/ei14p2.html#4.1>

Memo: The role of the DoD Enterprise Model in the Enterprise Integration process is described in detail in this section of the Enterprise Integration Implementing Strategy.

Enterprise Integration Implementing Strategy

Description: Enterprise Integration Implementing Strategy, June 1994, Center for Integration & Interoperability, Defense Information Systems Agency, U.S. Department of Defense.

References

Formal Document: <http://dtic.dla.mil/c3i/ei14toc.html>

Memo: This document outlines the overall DoD strategy for achieving enterprise integration. It describes the vision of the future Defense enterprise and identifies the factors considered critical to the success of the initiative. It also lists the near-term objectives and measures of performance for the effort.

Framework for Managing Process Improvement

Description: The framework describes twenty-five specific steps, organized into six phases, which guide functional users through the improvement process from mission validation to post-implementation assessment. The six phases are:

- (1) Strategy and Business Planning
- (2) Process Improvement
- (3) Change Management: Organizational
- (4) Change Management: Technical
- (5) Enterprise Engineering
- (6) Project Execution

References

Guidelines: <http://www.dtic.dla.mil/c3i/bprcd/3003.html>

Memo: This is an excellent Framework for Managing Process Improvement. It consists of a comprehensive methodology for performing process improvement projects and is applicable in all functional areas in the Department of Defense. It supports three levels of improvement efforts that are often included under the definition of functional process improvement (FPI): continuous process improvement, business process redesign, and business process reengineering.

DoD EI Executive Board

Description: The EI Executive Board manages the exchange of information and alternative perspectives of EI. It seeks senior-level consensus on unresolved issues related to implementation of cross-functional process improvements and shared data/information systems.

The EI Executive Board is the DoD senior level EI forum co-chaired by the Deputy Secretary of Defense. Membership consists of the Secretaries of the Army, Navy, and Air Force; the Vice Chairman, JCS; the Under Secretaries of Defense for Acquisition and Technology, Policy, Personnel and Readiness; the DoD Comptroller; and the General Counsel of the DoD who serves as legal adviser to the Board.

The Board's charter establishes it as a forum to exchange information about:

- The Board's objective in these discussions is senior-level consensus. The Board meets at least twice a year or more often, as necessary.

DoD EI Corporate Management Council

Description: The EI Corporate Management Council provides the forum to develop solutions, make decisions, and task implementing agencies on cross-functional solutions to enterprise-wide issues. The EI Corporate Management Council is the implementing mechanism for the Board. The Council is co-chaired by the PDUSD(A&T) and the ASD(C3I). Membership consists of the Under Secretary of Defense (Personnel and Readiness); the DoD Comptroller; the Assistant Secretaries of Defense, Health and Reserve Affairs; the Director, Program Analysis and Evaluation; the Deputy Under Secretaries of Defense for Policy/Chief of Staff, Acquisition Reform, Environmental Security, and Logistics; the Director, J-6 of the JCS; and membership from the Military Departments as nominated by their Service Secretaries.

EI implementation solutions are comprehensive. They encompass financial, human resources, process improvement, management and cultural impacts, and technical infrastructure issues including existing information systems within the DII. The council meets approximately four to six times per year.

Outputs

Integrated Enterprise

Description: <http://www.dtic.dla.mil/c3i/ei14p2.html#2.1>

Mechanisms

Enterprise Integration Project Teams

Description: Various EI project teams are assembled to effect various facets of the integrated enterprise. Generally, there is a EI project team for each major element of the integration process:

- Mission, Goals, and Objectives Integration Project Team
- Business Process Integration Project Team
- Information Management Integration Project Team
- Reorganization Task Force
- Financial Integration Task Force

A31 INTEGRATE VALUES, MISSIONS, VISIONS, GOALS, OBJECTIVES, MEASURES OF PERFORMANCE, AND PROGRAMS

Description

An integrated enterprise develops and maintains consistent values, missions, visions, goals and objectives, measures of performance, and programs at all levels. Investment decisions are based on a common functional enterprise model and strategic direction shared by all elements of the enterprise. Business unit objectives are integrated with partner and supplier objectives in order to maximize "end-to-end" value chain benefits. Improvements are harmonized to optimize impacts, and scarce investment resources are prioritized against the enterprise objectives. Integrated financial management ensures shared resources that are programmed and budgeted looking across functional lines. It also achieves economies of scale, recovery of costs, accounting of resources, and continuity for process improvement funding within and across functions. Cross-functional management solutions to enterprise wide issues are identified, planned and programmed.

References

Inputs

National Security Strategy

Description: The "National Security Strategy Report" is prepared annually by the President and forwarded to Congress as required by the Goldwater-Nichols Defense Department Reorganization Act of 1986. The report outlines the national security strategy of the administration and is a key document in the development of an integrated strategic plan for the Department of Defense.

Service and Component-Specific Strategic Business Plans

Description: Individual services and DoD components generally prepare Service or Component-specific strategic business plans. These plans can be deconflicted and integrated into a comprehensive strategic plan for the *integrated enterprise*.

Controls

Enterprise Integration Implementing Strategy

Description: Enterprise Integration Implementing Strategy, June 1994, Center for Integration & Interoperability, Defense Information Systems Agency, U.S. Department of Defense.

References

Formal Document: <http://dtic.dla.mil/c3i/ei14toc.html>

Memo: This document outlines the overall DoD for achieving enterprise integration. It describes the vision of the future Defense enterprise and identifies the factors considered critical to the success of the initiative. It also lists the near-term objectives and measures of performance for the effort.

Principal Staff Assistants (PSAs)

Description: OSD PSAs are responsible for implementing the DoD information management program within their functional areas and activities. Their focus is from a functional perspective. PSAs develop functional objectives for each of their functional areas and activities. In addition, they provide guidance and analytical support for improving processes, data, and supporting information systems to satisfy those objectives. PSAs are also responsible for implementing changes to streamline operations and improve cost-effectiveness. PSAs designate FAPMs to assist in this implementation.

Outputs

Integrated Values, Missions, Visions, Goals, Objectives, Measures of Performance, and Programs

Description: The set of *integrated* organizational values, missions, visions, goals, objectives, measures of performance, and programs of the enterprise serves as the overarching framework in which the human resources and organizational structures of an enterprise are integrated.

Mechanisms

Mission, Goals, and Objectives Integration Team

Description: A team may be assembled to integrate the various missions, goals, objectives, etc. of each sub-component of the activity being integrated.

A32 INTEGRATE BUSINESS PROCESSES

Description

One of the most important aspects of an integrated enterprise is the integration of business (or functional) processes across varying functions. Traditional functional organizations tend to focus on narrow concerns rather than concentrating their efforts on creating enterprise-wide solutions and delivering quality services to end-users. Industry is rapidly moving to a "horizontal" process orientation that capitalizes on core competencies in functional areas, where "vertical" functions such as personnel, finance, materiel, and

information management can be linked together into total value chains. Business Process Re-engineering is applied routinely throughout the DoD. Current baselines are assessed for performance and resource use. Benchmarks are identified to determine "best" practices in industry and government. Based on these assessments, and the goals of the leadership, processes are simplified and streamlined to the greatest extent possible. Non-value added activities are eliminated. Focus is placed on satisfying the customer's needs. The right products are supplied at the right place and time to help achieve the assigned mission. Parallel processes and concurrent activities are introduced to speed cycle times. Processes are designed to use the best available technology and a shared information environment. Standards are established for processes including metrics for quality, time, flexibility, customer satisfaction, and cost. Feedback for measuring process performance is "built-in." Continual cross-functional improvements are made to processes with periodic major innovations based on "paradigm shifts."

References

Inputs

Non-Integrated Business Processes

Description: A business process refers to the largest unit of work-flow through an enterprise, usually beginning with external suppliers and ending with external customers. A business process is typically decomposed into many smaller sub-processes, with each such sub-process possibly managed by a different functional component of the enterprise. A *non-integrated* business process is one in which these subprocesses are very poorly optimized across these functional boundaries.

Controls

Framework for Managing Process Improvement

Description: The framework describes twenty-five specific steps, organized into six phases, which guide functional users through the improvement process from mission validation to post-implementation assessment. The six phases are:

- (1) Strategy and Business Planning
- (2) Process Improvement
- (3) Change Management: Organizational
- (4) Change Management: Technical

- (5) Enterprise Engineering
- (6) Project Execution

References

Guidelines: <http://www.dtic.dla.mil/c3i/bprcd/3003.html>

Memo: This is an excellent Framework for Managing Process Improvement. It consists of a comprehensive methodology for performing process improvement projects and is applicable in all functional areas in the Department of Defense. It supports three levels of improvement efforts that are often included under the definition of functional process improvement (FPI): continuous process improvement, business process redesign, and business process reengineering.

Principal Staff Assistants (PSAs)

Description: OSD PSAs are responsible for implementing the DoD information management program within their functional areas and activities. Their focus is from a functional perspective. PSAs develop functional objectives for each of their functional areas and activities. In addition, they provide guidance and analytical support for improving processes, data, and supporting information systems to satisfy those objectives. PSAs are also responsible for implementing changes to streamline operations and improve cost-effectiveness. PSAs designate FAPMs to assist in this implementation.

Functional Activity Program Manager (FAPM)

Description: The FAPM is responsible for executing the functional management process. They take the lead in defining the functional scope of the migration system domain. Their responsibilities include:

- Developing functional architectures and strategic plans, and establishing process, data, and information system baselines
- Leading OSD and DoD Component participants in process improvement
- Evaluating alternatives presented in Functional Economic Analyses (FEAs) and submitting these to PSAs
- Preparing data and technical management plans and presenting these to PSAs
- Executing process and data changes and providing functional management oversight on system changes

Outputs

Integrated Business Processes

Description: Integrated business processes refers to the situation in which processes are managed from a *process* (in contrast to a *functional*) perspective. In other words, work flow is optimized to meet process goals

rather than the suboptimal goals of each functional component responsible for the various sub-processes.

Mechanisms

Business Process Integration Team

Description: A team may be assembled to effect the integration of the business processes of the functional activity and all of its sub-components.

A33 INTEGRATE INFORMATION MANAGEMENT PROCESSES

Description

The goal of this major phase of the enterprise integration process is to achieve effective (cross-functional) information delivery by the cross-functional integration of the DoD information systems. There are three major tasks to this important phase of the EI process: data element standardization, standardization and integration of the information systems environment, and the development and implementation of a DoD-wide information systems architecture.

In an integrated enterprise, information is managed as a corporate asset so managers and workers can share a complete, consistent, accurate, and timely view of the enterprise. A rigorous and unambiguous terminology is established through semantic data modeling and data standards. Focus is placed on the capture and effective use of enterprise knowledge as the strategic resource in the so-called "information age." Information systems provide an important enabling technology for improving decision making and process performance. Unfortunately, many existing systems were put in place without an overall integration strategy and were designed to automate a narrowly defined function rather than an "end-to-end" or complete process. Systems are designed according to an open architecture that allows for both extensibility and flexibility, and rapid interconnection with other systems to accomplish a specific task. A common information infrastructure supporting all applications is shared among all users. The common infrastructure can be extended to include customers and partners (e.g., other Government agencies, allies) to support a global view of DoD's missions and interfaces. The information content of business transactions is standardized to facilitate electronic data interchange for both business and technical data. The quality of data is continually monitored and controlled, ensuring that the right data is provided to the right person at the right time. The traditional paper-oriented environment is replaced with a more robust multi-media electronic-oriented information environment that recognizes the value of

sharing and reuse of information within the enterprise and with other organizations. The Continuous Acquisition and Life-Cycle Support (CALS) concept and technologies for an Integrated Data Environment (IDE) can be applied across DoD functions and with industry to enable process improvement and cost savings. Duplication in the current baseline of information systems is eliminated rapidly and current legacy information systems transition smoothly to the integrated environment through encapsulation or conversion.

References

Formal Document: Interim Management Guidance on Functional Process Improvements (DoD 8020.1-M)

Memo: This Department of Defense (Draft) Manual defines the overall functional management process for implementing the Defense Information Management (IM) program.

Inputs

Non-Integrated Information Management Processes

Description: Non-integrated information management processes are those information processing and delivery processes that have been developed to support a particular functional area with little or not regard for the data needs of other functional components or of the enterprise as a whole. The hallmark of a non-integrated information management environment is a large number of "stovepipe" information systems that do not share common data elements or interoperate.

Controls

Functional Activity Program Manager (FAPM)

Description: The FAPM is responsible for executing the functional management process. They take the lead in defining the functional scope of the migration system domain. Their responsibilities include:

- Developing functional architectures and strategic plans, and establishing process, data, and information system baselines
- Leading OSD and DoD Component participants in process improvement
- Evaluating alternatives presented in Functional Economic Analyses (FEAs) and submitting these to PSAs
- Preparing data and technical management plans and presenting these to PSAs

- Executing process and data changes and providing functional management oversight on system changes

Integrated Values, Missions, Visions, Goals, Objectives, Measures of Performance, and Programs

Description: The set of *integrated* organizational values, missions, visions, goals, objectives, measures of performance, and programs of the enterprise serves as the overarching framework in which the human resources and organizational structures of an enterprise are integrated.

Framework for Managing Process Improvement

Description: The framework describes twenty-five specific steps, organized into six phases, which guide functional users through the improvement process from mission validation to post-implementation assessment. The six phases are:

- (1) Strategy and Business Planning
- (2) Process Improvement
- (3) Change Management: Organizational
- (4) Change Management: Technical
- (5) Enterprise Engineering
- (6) Project Execution

References

Guidelines: <http://www.dtic.dla.mil/c3i/bprcd/3003.html>

Memo: This is an excellent Framework for Managing Process Improvement. It consists of a comprehensive methodology for performing process improvement projects and is applicable in all functional areas in the Department of Defense. It supports three levels of improvement efforts that are often included under the definition of functional process improvement (FPI): continuous process improvement, business process redesign, and business process reengineering.

Enterprise Integration Implementing Strategy

Description: Enterprise Integration Implementing Strategy, June 1994, Center for Integration & Interoperability, Defense Information Systems Agency, U.S. Department of Defense.

References

Formal Document: <http://dtic.dla.mil/c3i/ei14toc.html>

Memo: This document outlines the overall DoD for achieving enterprise integration. It describes the vision of the future Defense enterprise and identifies the factors considered critical to the success of the initiative. It

also lists the near-term objectives and measures of performance for the effort.

DISA (Defense Information Systems Agency)

Description: The Defense Information Systems Agency has overall responsible for information systems within DoD and figures prominently in the process of information management integration.

Principal Staff Assistants (PSAs)

Description: OSD PSAs are responsible for implementing the DoD information management program within their functional areas and activities. Their focus is from a functional perspective. PSAs develop functional objectives for each of their functional areas and activities. In addition, they provide guidance and analytical support for improving processes, data, and supporting information systems to satisfy those objectives. PSAs are also responsible for implementing changes to streamline operations and improve cost-effectiveness. PSAs designate FAPMs to assist in this implementation.

Functional Data Administrator (FDAd)

Description: The Functional Data Administrator (FDAd) for a functional area is responsible for the integration and management of the data models and standard data elements across functional activities within the functional area.

References

Formal Document: Appendix A, Part 3, Functional Process Improvement, DoD 8020.1-M (Draft) Change 1

Memo: The roles and responsibilities of the Functional Data Administrator (FDAd) are formally presented in Appendix A, Part 3, of DoD 8020.1-M (Draft) Change 1.

Outputs

Integrated Information Management Processes

Description: Integrated information management processes are those characterized by "end-to-end" (i.e., across functional and organizational boundaries) information delivery. Such processes are automated with non-redundant information systems that share corporate information by employing standardized data elements within a common information infrastructure.

Mechanisms

Information Management Integration Project Teams

Description: Various information management integration project teams are assembled to effect any necessary integration of the information management function within the functional activity.

A331 STANDARDIZE DATA ELEMENTS

Description

The goal of this major phase of the enterprise integration process is to achieve enterprise integration by facilitating and promoting greater use of common and shared data.

References

Inputs

Non-Standard Data Elements

Description: Non-standard data elements are those data elements that should be shared among different (but related) information systems but which, as a matter of fact, have different names, formats, and (possibly) allowable data values.

Controls

Functional Data Administrator (FDAd)

Description: The Functional Data Administrator (FDAd) for a functional area is responsible for the integration and management of the data models and standard data elements across functional activities within the functional area.

References

Formal Document: Appendix A, Part 3, Functional Process Improvement, DoD 8020.1-M (Draft) Change 1

Memo: The roles and responsibilities of the Functional Data Administrator (FDAd) are formally presented in Appendix A, Part 3, of DoD 8020.1-M (Draft) Change 1.

DISA (Defense Information Systems Agency)

Description: The Defense Information Systems Agency has overall responsible for information systems within DoD and figures prominently in the process of information management integration.

Outputs

Standardized Data Elements

Description: Standardized data elements are those data elements that can be shared among related information systems because there is for each such element a single name, format description, and allowable values.

Mechanisms

Data Element Standardization Task Force

Description: A data element standardization task force (or other suitable organizational team) is charged with the responsibility to develop a DoD-wide dictionary of standard data elements.

A332 STANDARDIZE AND INTEGRATE IS ENVIRONMENT

Description

The purpose of this activity is to establish and implement a migration strategy for a functional activity.

The basic objective of the migration system selection and implementation process is to quickly replace the large number of redundant and costly legacy systems with a set of standard, DoD-wide systems that can serve as a baseline for data standardization and functional process improvement efforts.

The importance of migration system selection and implementation in achieving the overall objectives of the Department of Defense Corporate Information Management (CIM) initiative is underscored in an October 13, 1993 memorandum by the then Deputy Secretary of Defense William Perry.

The importance of migration system selection and implementation has been reiterated in subsequent memoranda from the Assistant Secretary of Defense for Command, Control, Communications, and Intelligence, Mr. Emmett Paige, Jr.

References

Bibliography: <http://www.disa.mil/D7/onlnpubs/eiguide/ref.html>

Memo: List of references relevant to the EI process from the Enterprise Integration Products and Services document.

Formal Documents: <http://www.dtic.dla.mil/c3i/migcov2.html>

Memo: The July 10, 1995 memorandum from Assistant Secretary of Defense for Command, Control, Communications and Intelligence, ASD(C3I), conveying a revised list of migration systems/applications that have been selected for each functional area.

Formal Documents: <http://www.dtic.dla.mil/c3i/migatt2.html>

Memo: Attachment to Paige Memo (7/10/95): A revised list of migration systems/applications that have been selected for each functional area.

Formal Documents: <http://www.dtic.dla.mil/dodcim/oct1393.html>

Memo: Memorandum, October 13, 1993, Subject: Accelerated Implementation of Migration Systems, Data Standards, and Process Improvement. Provides DEPSECDEF policy and guidance on accelerating implementation of migration systems, data standardization, and process improvement.

Lessons: Joint Transportation CIM Center (JTCC) Concept of Operations (CONOPS) for Migration Systems Implementation

Memo: This document was developed by the Joint Transportation CIM Center to provide detailed guidance in the conduct of migration systems selection and implementation for systems supporting USTRANSCOM.

Inputs

Non-Standard and Non-Integrated Information Systems Environment

Description: A non-standard and non-integrated information systems environment is one characterized by a large number of "stovepipe" information systems that do not share common data elements and do not interoperate.

Controls

Principal Staff Assistants (PSAs)

Description: OSD PSAs are responsible for implementing the DoD information management program within their functional areas and activities. Their focus is from a functional perspective. PSAs develop functional objectives for each of their functional areas and activities. In addition, they provide guidance and analytical support for improving processes, data, and supporting information systems to satisfy those objectives. PSAs are also

responsible for implementing changes to streamline operations and improve cost-effectiveness. PSAs designate FAPMs to assist in this implementation.

Functional Activity Program Manager (FAPM)

Description: The FAPM is responsible for executing the functional management process. They take the lead in defining the functional scope of the migration system domain. Their responsibilities include:

- Developing functional architectures and strategic plans, and establishing process, data, and information system baselines
- Leading OSD and DoD Component participants in process improvement
- Evaluating alternatives presented in Functional Economic Analyses (FEAs) and submitting these to PSAs
- Preparing data and technical management plans and presenting these to PSAs
- Executing process and data changes and providing functional management oversight on system changes

Functional Data Administrator (FDAd)

Description: The Functional Data Administrator (FDAd) for a functional area is responsible for the integration and management of the data models and standard data elements across functional activities within the functional area.

References

Formal Document: Appendix A, Part 3, Functional Process Improvement, DoD 8020.1-M (Draft) Change 1

Memo: The roles and responsibilities of the Functional Data Administrator (FDAd) are formally presented in Appendix A, Part 3, of DoD 8020.1-M (Draft) Change 1.

DISA (Defense Information Systems Agency)

Description: The Defense Information Systems Agency has overall responsibility for information systems within DoD and figures prominently in the process of information management integration.

Technical Integration Manager (TIM)

Description: The Technical Integration Manager (TIM) provides technical support to OSD Principal Staff Assistants (PSAs) and Functional Activity Program Managers (FAPMs).

References

Formal Document: Appendix C, Part 1, Functional Process Improvement, DoD 8020.1-M (Draft) Change 1.

Memo: The roles and responsibilities of the Technical Integration Manager (TIM) are formally presented in Appendix A, Part 3, of DoD 8020.1-M (Draft) Change 1.

Technical Architecture Framework for Information Management (TAFIM)

Description: The TAFIM is the single technical architecture framework for the DoD information systems development and management. It provides the DoD-wide framework to manage multiple technical architecture initiatives. The TAFIM does not provide a specific system architecture. Instead, it provides the services, standards, design concepts, components, and configurations that can be used to guide the development of technical architectures that meet specific mission requirements.

References

Formal Document: <http://www.itsi.disa.mil/cfs/tafim.html>

Memo: The official version of the TAFIM is Version 2.0, except for Volume 7 (Adopted Information Technology Standards) which is Version 2.1. There is no Volume 5 (Program Manager's Guide for Open Systems) in Version 2.0. Volume 5 will be available in Version 3.0. Volume 7 is in WordPerfect format only. There are no plans to convert Volume 7 to MS WORD for Version 2.1. Volume 7 will be in MS WORD format in Version 3.0.

Formal Document: <ftp://ftp.itsi.disc.mil/pub/library/policies/tafim/pgmemo23.txt>

Memo: This June 23, 1994 memorandum from the Assistant Secretary of Defense for Command, Control, Communications and Intelligence, ASD(C3I), affirms DoD's commitment to the Technical Architecture Framework for Information Management (TAFIM)

Formal Document: <ftp://ftp.itsi.disc.mil/pub/library/policies/tafim/pgmemo30.txt>

Memo: This March 30, 1995 memorandum from the Assistant Secretary of Defense for Command, Control, Communications and Intelligence, ASD(C3I), reiterates DoD's commitment to the long range goal of an open systems environment characterized by interoperable and cross-functionally integrated systems and portable/reusable software. All new DoD information systems development and modernization programs are to conform to the TAFIM.

Outputs

Standardized and Integrated Information Systems Environment

Description: Standardized and integrated information systems are those systems that automate integrated information management processes; they are non-redundant and employ standardized data elements within a common information infrastructure.

Mechanisms

Defense Integration Support Tools (DIST)

Description: The Defense Integration Support Tools (DIST) is the primary tool provided by DISA to facilitate Enterprise Integration management and documentation. It supports legacy system assessment and preparation of migration strategies and migration plans.

The DIST is an analytical decision support tool that can be used to expedite preparation of the EI documentation used to make informed business decisions. The DIST captures and maintains pertinent system information, including data used in modeling and simulation.

References

Formal Document: <http://www.disa.mil/D7/onlypubs/eiguide/2.html>

Memo: This document (section 2 of DISA's EI Guide) presents a good overview of the features and capabilities of the DIST.

Information Management Integration Project Teams

Description: Various information management integration project teams are assembled to effect any necessary integration of the information management function within the functional activity.

A3321 DETERMINE MIGRATION STRATEGY

Description

The purpose of this activity is to devise a strategy to migrate the legacy information systems environment of the functional activity to a standard (or migration system) environment. The migration strategy is documented in an Integration Decision Paper (IDP). Upon approval of the migration strategy, a plan for the actual implementation of the migration strategy is documented in a Technical Integration Plan (TIP).

References

Formal Document: <http://www.disa.mil/D7/onlypubs/eiguide/5.html>

Memo: This document (from the DISA EI Guide) provides an excellent overview of the principles and processes involved in the formulation of an effective migration strategy for a functional area or activity.

Inputs

Description of Legacy System Environment

Description: An in-depth characterization of the current legacy system environment of the functional activity is the principal input for this activity.

Controls

Directorate for Strategic Plans and Policy (DISA/D5)

Description: The Directorate for Strategic Plans and Policy conducts policy formulation, strategic planning, and integrated program development for DISA. DISA/D5 ensures that DISA policy, plans and programs meet the infrastructure, command and control, intelligence and mission support needs of the Joint Staff, CINCs, Services, and other DoD and federal agencies. DISA/D5 also provides capstone architectural oversight and staff direction to DISA Information Technology architectural development efforts.

DISA/D5 plays an important role in Enterprise Integration. The planning process connects logically to the corresponding activities on the Joint Staff, at OSD and in the Services and Agencies. Enterprise Integration is a vital component in making the planning process support the needs of the Warfighter and other functional customers including command and control, intelligence and mission support.

Directorate for Enterprise Integration (DISA/D7)

Description: The Directorate for Enterprise Integration is the primary supporting agency for the EI Corporate Management Council. Working closely with OASD(C3I), the EI office publishes and maintains EI strategy and implementation plans for the DoD. As decisions are made and approved, the EI office records the decisions and supporting implementation strategies. The EI office documents the EI process and maintains information for management review and prioritization on resourcing, data strategies, migration systems, proofs-of-concept, cross-functional programs, and technical infrastructure implementation within the DII.

Directorate for C4I Modeling, Simulation and Assessment (DISA/D8)

Description: The Directorate for C4I Modeling, Simulation and Assessment (DISA/D8) maintains the Defense Integration Support Tool (DIST) and associated assessment methodologies for evaluation of EI strategies. Using data from the DIST, EI assessments enable functional communities, including Command and Control, Intelligence and Mission Support, to work toward better cross-functional integration, improved DII capability and increased data sharing. The result is enhanced capability to use information and advanced technology as a force multiplier.

Principal Staff Assistants (PSAs)

Description: OSD PSAs are responsible for implementing the DoD information management program within their functional areas and activities. Their focus is from a functional perspective. PSAs develop functional objectives for each of their functional areas and activities. In addition, they provide guidance and analytical support for improving processes, data, and supporting information systems to satisfy those objectives. PSAs are also responsible for implementing changes to streamline operations and improve cost-effectiveness. PSAs designate FAPMs to assist in this implementation.

Functional Activity Program Manager (FAPM)

Description: The FAPM is responsible for executing the functional management process. They take the lead in defining the functional scope of the migration system domain. Their responsibilities include:

- Developing functional architectures and strategic plans, and establishing process, data, and information system baselines
- Leading OSD and DoD Component participants in process improvement
- Evaluating alternatives presented in Functional Economic Analyses (FEAs) and submitting these to PSAs
- Preparing data and technical management plans and presenting these to PSAs
- Executing process and data changes and providing functional management oversight on system changes

Functional Data Administrator (FDAd)

Description: The Functional Data Administrator (FDAd) for a functional area is responsible for the integration and management of the data models and standard data elements across functional activities within the functional area.

References

Formal Document: Appendix A, Part 3, Functional Process Improvement, DoD 8020.1-M (Draft) Change 1

Memo: The roles and responsibilities of the Functional Data Administrator (FDAd) are formally presented in Appendix A, Part 3, of DoD 8020.1-M (Draft) Change 1.

Outputs

Tactical Integration Plan (TIP)

Description: The Tactical Integration Plan (TIP) is the implementation plan for an approved migration strategy.

Mechanisms

Defense Integration Support Tools (DIST)

Description: The Defense Integration Support Tools (DIST) is the primary tool provided by DISA to facilitate Enterprise Integration management and documentation. It supports legacy system assessment and preparation of migration strategies and migration plans.

The DIST is an analytical decision support tool that can be used to expedite preparation of the EI documentation used to make informed business decisions. The DIST captures and maintains pertinent system information, including data used in modeling and simulation.

References

Formal Document: <http://www.disa.mil/D7/onlnpubs/eiguide/2.html>

Memo: This document (section 2 of DISA's EI Guide) presents a good overview of the features and capabilities of the DIST.

Migration Strategy Development Team

Description: The migration strategy development team is a distinct information management integration team that will focus on the development of an overall migration strategy for a functional activity.

A33211 DEVELOP SCOPE AND SELECTION CRITERIA

Description

The purpose of this activity is twofold: (1) to determine the functional scope of the migration system selection and implementation effort, and (2) to establish the criteria to be used to evaluate candidate migration systems. Since functionality is generally a significant factor in migration system selection and is usually unique to the functional activity, the functional scope desired of the selected migration system should be carefully delineated. Usually the most practical way to begin delineating the essential functions of a functional activity is to examine the (legacy) information systems that are in place to support the activity.

References

Formal Documents: URL <http://www.dtic.dla.mil/c3i/nov.html>

Memo: ASD(C3I) Memorandum, November 12, 1993, Subject: Selection of Migration Systems, provides the generic criteria for selection of migration systems. It also offers DISA assistance and tools to expedite migration systems analysis.

Inputs

Legacy System Functional Description

Description: The functional specification (if available) for each legacy system is an important source of information for any attempt to define the functional scope of the envisaged migration system.

Generic Legacy System Assessment Criteria and Questionnaire

Description: The DIST provides a generic legacy system assessment checklist called the "extended core" checklist. It was designed to enable a fair evaluation of many legacy systems by using a common, minimal set of important evaluation criteria.

Controls

Functional Activity Program Manager (FAPM)

Description: The FAPM is responsible for executing the functional management process. They take the lead in defining the functional scope of the migration system domain. Their responsibilities include:

- Developing functional architectures and strategic plans, and establishing process, data, and information system baselines
- Leading OSD and DoD Component participants in process improvement
- Evaluating alternatives presented in Functional Economic Analyses (FEAs) and submitting these to PSAs
- Preparing data and technical management plans and presenting these to PSAs
- Executing process and data changes and providing functional management oversight on system changes

Technical Integration Manager (TIM)

Description: The Technical Integration Manager (TIM) provides technical support to OSD Principal Staff Assistants (PSAs) and Functional Activity Program Managers (FAPMs).

References

Formal Document: Appendix C, Part 1, Functional Process Improvement, DoD 8020.1-M (Draft) Change 1.

Memo: The roles and responsibilities of the Technical Integration Manager (TIM) are formally presented in Appendix A, Part 3, of DoD 8020.1-M (Draft) Change 1.

Functional Data Administrator (FDAd)

Description: The Functional Data Administrator (FDAd) for a functional area is responsible for the integration and management of the data models and standard data elements across functional activities within the functional area.

References

Formal Document: Appendix A, Part 3, Functional Process Improvement, DoD 8020.1-M (Draft) Change 1

Memo: The roles and responsibilities of the Functional Data Administrator (FDAd) are formally presented in Appendix A, Part 3, of DoD 8020.1-M (Draft) Change 1.

Outputs

Legacy System Assessment Questionnaire

Description: The approved Legacy System Assessment Questionnaire for the Functional Activity contains both generic (common denominator) legacy system assessment questions and questions that reflect aspects of the functional activity that are considered very important to the accomplishment of the activity's mission.

List of Candidate Migration Systems

Description: A list of candidate migration systems that will be subjected to rigorous assessments to determine a single (or combination) migration system for the functional activity. This list will probably be a subset of the list of all legacy applications currently associated with the functional activity. It may include, however, legacy systems that are "officially" assigned to other functional activities.

Mechanisms

Defense Integration Support Tools (DIST)

Description: The Defense Integration Support Tools (DIST) is the primary tool provided by DISA to facilitate Enterprise Integration management and documentation. It supports legacy system assessment and preparation of migration strategies and migration plans.

The DIST is an analytical decision support tool that can be used to expedite preparation of the EI documentation used to make informed business decisions. The DIST captures and maintains pertinent system information, including data used in modeling and simulation.

References

Formal Document: <http://www.disa.mil/D7/onlinepubs/eiguide/2.html>

Memo: This document (section 2 of DISA's EI Guide) presents a good overview of the features and capabilities of the DIST.

Migration Strategy Development Team

Description: A Migration Strategy Development Team is responsible for the formulation of a suitable migration system strategy for the functional activity.

A332111 DEFINE FUNCTIONAL SCOPE OF MIGRATION SYSTEM

Description

The purpose of this activity is to define the intended functional scope of the migration system.

References

Inputs

Legacy System Functional Description

Description: The functional specification (if available) for each legacy system is an important source of information for any attempt to define the functional scope of the envisaged migration system.

Controls

Functional Activity Program Manager (FAPM)

Description: The FAPM is responsible for executing the functional management process. They take the lead in defining the functional scope of the migration system domain. Their responsibilities include:

- Developing functional architectures and strategic plans, and establishing process, data, and information system baselines
- Leading OSD and DoD Component participants in process improvement
- Evaluating alternatives presented in Functional Economic Analyses (FEAs) and submitting these to PSAs
- Preparing data and technical management plans and presenting these to PSAs
- Executing process and data changes and providing functional management oversight on system changes

Outputs

List of Candidate Migration Systems

Description: A list of candidate migration systems that will be subjected to rigorous assessments to determine a single (or combination) migration system for the functional activity. This list will probably be a subset of the list of all legacy applications currently associated with the functional activity. It may include, however, legacy systems that are “officially” assigned to other functional activities.

List of Key and Basic Functionality of the Functional Activity

Description: The output of this task is a list of the key and otherwise basic functionality provided by operational (legacy) information systems of the functional activity.

Mechanisms

Defense Integration Support Tools (DIST)

Description: The Defense Integration Support Tools (DIST) is the primary tool provided by DISA to facilitate Enterprise Integration management and documentation. It supports legacy system assessment and preparation of migration strategies and migration plans.

The DIST is an analytical decision support tool that can be used to expedite preparation of the EI documentation used to make informed business decisions. The DIST captures and maintains pertinent system information, including data used in modeling and simulation.

References

Formal Document: <http://www.disa.mil/D7/onlnpubs/eiguide/2.html>

Memo: This document (section 2 of DISA’s EI Guide) presents a good overview of the features and capabilities of the DIST.

Migration Strategy Development Team

Description: A Migration Strategy Development Team is responsible for the formulation of a suitable migration system strategy for the functional activity.

A3321111 INVENTORY BASELINE

Description

The purpose of this activity is to identify all possible candidate migration systems, that is, the set of all legacy systems that approximate the functionality defined for the domain. Baseline inventory information is available from a variety of sources, including the

information systems database contained in the Defense Integration Support Tools (DIST). The DIST Migration Assessment Tool (MAT) catalogues the inventory of legacy or "As-Is" systems.

References

Formal Documents: <http://www.dtic.dla.mil/c3i/sidememg.html>

Memo: ASD(C3I) Memorandum, August 16, 1995, Subject: Systems Interface, Data Exchange, and Performance Measure Information, reiterates a September 2, 1994 Memorandum that required the reporting of system interface and data exchange information for migration and legacy information systems. The information reported and maintained in response to these Memoranda is an excellent source of information for determining the legacy system baseline for a functional area or activity.

Guidelines: <http://www.disa.mil/D7/onlnpubs/eiguide/3.html>

Memo: This document (from the DISA EI Guide) describes the basic legacy system baseline inventory process.

Inputs

Controls

Integrated Values, Missions, Visions, Goals, Objectives, Measures of Performance, and Programs

Description: The set of *integrated* organizational values, missions, visions, goals, objectives, measures of performance, and programs of the enterprise serves as the overarching framework in which the human resources and organizational structures of an enterprise are integrated.

Functional Activity Program Manager (FAPM)

Description: The FAPM is responsible for executing the functional management process. They take the lead in defining the functional scope of the migration system domain. Their responsibilities include:

- Developing functional architectures and strategic plans, and establishing process, data, and information system baselines
- Leading OSD and DoD Component participants in process improvement
- Evaluating alternatives presented in Functional Economic Analyses (FEAs) and submitting these to PSAs
- Preparing data and technical management plans and presenting these to PSAs
- Executing process and data changes and providing functional management oversight on system changes

Outputs

Functional Activity Legacy System Inventory

Description: List of all major legacy systems that directly support the functional activity.

Mechanisms

DoD-wide Legacy System Inventory

Description: The DIST currently maintains a very large DoD-wide inventory of legacy automated information systems.

Migration Strategy Development Team

Description: A Migration Strategy Development Team is responsible for the formulation of a suitable migration system strategy for the functional activity.

A3321112 FUNCTIONALLY CATEGORIZE MIGRATION SYSTEM DOMAIN

Description

The purpose of this activity is to define the scope of the migration system selection effort in *functional* terms. Ideally, this determination is made independently of any functionality claims made with respect to the legacy system environment. In other words, the functionality of activity should not be defined by the functionality provided by existing (legacy) information systems (although there should be considerable overlap between the functions performed by the functional activity and the functionality provided by the activity's legacy systems). Rather, the mission essential functionality of the functional activity should be defined solely in terms of the mission of the functional activity and may require a careful review of the goals and objectives of the activity.

References

Inputs

Functional Activity Legacy System Inventory

Description: List of all major legacy systems that directly support the functional activity.

Legacy System Functional Description

Description: The functional specification (if available) for each legacy system is an important source of information for any attempt to define the functional scope of the envisaged migration system.

Controls

Functional Activity Program Manager (FAPM)

Description: The FAPM is responsible for executing the functional management process. They take the lead in defining the functional scope of the migration system domain. Their responsibilities include:

- Developing functional architectures and strategic plans, and establishing process, data, and information system baselines
- Leading OSD and DoD Component participants in process improvement
- Evaluating alternatives presented in Functional Economic Analyses (FEAs) and submitting these to PSAs
- Preparing data and technical management plans and presenting these to PSAs
- Executing process and data changes and providing functional management oversight on system changes

Outputs

List of Key and Basic Functionality of the Functional Activity

Description: The output of this task is a list of the key and otherwise basic functionality provided by operational (legacy) information systems of the functional activity.

Mechanisms

Migration Strategy Development Team

Description: A Migration Strategy Development Team is responsible for the formulation of a suitable migration system strategy for the functional activity.

A3321113 SELECT CANDIDATE MIGRATION SYSTEMS

Description

The purpose of this activity is to identify genuine candidate migration systems from the set of all legacy systems that approximate the functionality defined for the domain of the functional activity. (This includes identifying major modules of the legacy systems that provide a function that is considered an essential function of the activity.) The goal of this

activity is to narrow the set of legacy systems to be assessed to a tractable list. It is this list of major information systems that provides essential functionality for the functional activity and that is subject to thorough assessment later in the migration system selection process.

References

Inputs

Functional Activity Legacy System Inventory

Description: List of all major legacy systems that directly support the functional activity.

List of Key and Basic Functionality of the Functional Activity

Description: The output of this task is a list of the key and otherwise basic functionality provided by operational (legacy) information systems of the functional activity.

Controls

Outputs

List of Candidate Migration Systems

Description: A list of candidate migration systems that will be subjected to rigorous assessments to determine a single (or combination) migration system for the functional activity.

Mechanisms

Migration Strategy Development Team

Description: A Migration Strategy Development Team is responsible for the formulation of a suitable migration system strategy for the functional activity.

A332112 DEVELOP LEGACY ASSESSMENT CRITERIA

Description

The Legacy Assessment process evaluates existing systems attributes against a checklist to identify the legacy system (or systems) best suited to become a migration system and part of the AIS baseline.

The purpose of a legacy assessment is to gather and assess information about legacy systems in a functional area or activity. Legacy assessments are critical to the integration management process as this assessment data feeds migration strategies, migration diagrams, cross-functional integration, and the functional economic analysis/integration decision paper (FEA/IDP). This data is used to document and compare functional and technical capabilities of legacy systems within a functional area or activity. Principle Staff Assistants (PSAs) use legacy assessments as part of the decision process to select the migration system and assess migration strategies for their functional areas. The selected migration system becomes part of the migration Automated Information System (AIS) baseline.

Legacy assessments must address how well an application supports activities within its functional activity, what capability exists to interact with other systems, and its infrastructure features.

Legacy assessments are conducted for each functional activity using a standard integration checklist for migration assessment developed by DISA.

The purpose of this activity is to establish a preliminary set of legacy system evaluation criteria. There are typically four perspectives from which legacy systems can be evaluated for suitability as a migration system: functional, technical, data-handling, and programmatic. Since each legacy system can be thought of as consisting of three components (data, application, and implementing infrastructure), there is the possibility of evaluating twelve more or less distinct facets of each legacy system.

References

Formal Document: <http://www.disa.mil/D7/onlypubs/eiguide/6.html>

Memo: This is a detailed description of the legacy assessment process. In addition, it contains a description of (and rationale for) the legacy assessment criteria contained in the generic legacy system assessment checklist.

Inputs

Generic Legacy System Assessment Criteria and Questionnaire

Description: The DIST provides a generic legacy system assessment checklist called the "extended core" checklist. It was designed to enable a fair evaluation of many legacy systems by using a common, minimal set of important evaluation criteria.

List of Key and Basic Functionality of the Functional Activity

Description: The output of this task is a list of the key and otherwise basic functionality provided by operational (legacy) information systems of the functional activity.

Controls

Functional Activity Program Manager (FAPM)

Description: The FAPM is responsible for executing the functional management process. They take the lead in defining the functional scope of the migration system domain. Their responsibilities include:

- Developing functional architectures and strategic plans, and establishing process, data, and information system baselines
- Leading OSD and DoD Component participants in process improvement
- Evaluating alternatives presented in Functional Economic Analyses (FEAs) and submitting these to PSAs
- Preparing data and technical management plans and presenting these to PSAs
- Executing process and data changes and providing functional management oversight on system changes

Technical Integration Manager (TIM)

Description: The Technical Integration Manager (TIM) provides technical support to OSD Principal Staff Assistants (PSAs) and Functional Activity Program Managers (FAPMs).

References

Formal Document: Appendix C, Part 1, Functional Process Improvement, DoD 8020.1-M (Draft) Change 1.

Memo: The roles and responsibilities of the Technical Integration Manager (TIM) are formally presented in Appendix A, Part 3, of DoD 8020.1-M (Draft) Change 1.

Functional Data Administrator (FDAd)

Description: The Functional Data Administrator (FDAd) for a functional area is responsible for the integration and management of the data models and standard data elements across functional activities within the functional area.

References

Formal Document: Appendix A, Part 3, Functional Process Improvement, DoD 8020.1-M (Draft) Change 1

Memo: The roles and responsibilities of the Functional Data Administrator (FDAd) are formally presented in Appendix A, Part 3, of DoD 8020.1-M (Draft) Change 1.

Outputs

Legacy Systems Assessment Questionnaire

Description: The Approved Legacy System Assessment Questionnaire for the Functional Activity contains both generic (common denominator) legacy system assessment questions and questions that reflect aspects of the functional activity that are considered very important to the accomplishment of the activity's mission.

Mechanisms

Migration Strategy Development Team

Description: A Migration Strategy Development Team is responsible for the formulation of a suitable migration system strategy for the functional activity.

A3321121 ESTABLISH FUNCTIONAL CRITERIA AND QUESTION SET

Description

The purpose of this activity is to identify the functional factors that are important in the selection of a migration system for the functional activity.

The standard Integration Checklist is used to assess the three components (data, application, and infrastructure) of each legacy system that is a migration system candidate in terms of four "views": functional, technical, data-handling, and programmatic. The standard Integration Checklist provides a set of criteria for the objective, functional activity-independent evaluation of the "functional" aspects of the data, application, and infrastructure components of an AIS, as listed below:

DATA COMPONENT

- Data Sharing

- Data Quality

APPLICATION COMPONENT

- Operational Status

- Cross-Functional Support

- Functional Activity

- Operational Requirements

Application Usability
INFRASTRUCTURE COMPONENT

Infrastructure Design
Infrastructure Processing Model
Infrastructure Usability
Infrastructure
TAFIM Services

In addition to this domain independent evaluation, it is crucial that all major, mission critical functionality required by a legacy AIS portfolio that supports the functional activity be identified and incorporated into the migration system selection process. The mission critical functionality of the functional activity should be consistent with and an obvious extension of the functionality identified in Task A3321112.

References

Formal Documents: URL <http://www.dtic.dla.mil/c3i/nov1293.html>

Memo: ASD(C3I) Memorandum, November 12, 1993, Subject: Selection of Migration Systems, provides the generic criteria for selection of migration systems.

Inputs

List of Key and Basic Functionality of the Functional Activity

Description: The list of the key and otherwise basic functionality provided by operational (legacy) information systems of the functional activity.

Controls

Functional Activity Program Manager (FAPM)

Description: The FAPM is responsible for executing the functional management process. They take the lead in defining the functional scope of the migration system domain. Their responsibilities include:

- Developing functional architectures and strategic plans, and establishing process, data, and information system baselines
- Leading OSD and DoD Component participants in process improvement
- Evaluating alternatives presented in Functional Economic Analyses (FEAs) and submitting these to PSAs
- Preparing data and technical management plans and presenting these to PSAs

- Executing process and data changes and providing functional management oversight on system changes

Outputs

Approved Assessment Questions and Weights for Functional Assessment

Description: Specification of mission critical or otherwise essential functionality of the functional activity.

Mechanisms

Migration Strategy Development Team

Description: A Migration Strategy Development Team is responsible for the formulation of a suitable migration system strategy for the functional activity.

A33211211 IDENTIFY MAJOR LEGACY SYSTEM FUNCTIONALITY

Description

In addition to the domain independent functional evaluation as provided by the standard Integration Checklist, each legacy AIS needs to be assessed in terms of all major, mission critical functionality required by the functional activity. The purpose of this activity is to identify this functionality.

This functionality may be a subset of the functionality exhibited by operational legacy systems. Ideally, only the major functional components of the existing legacy portfolio should be considered for inclusion in the set of key functional requirements for the functional activity. Legacy system functionality that is not mission critical or otherwise essential should not be included in the list of required functionality.

References

Inputs

List of Key and Basic Functionality of the Functional Activity

Description: The output of this task is a list of the key and otherwise basic functionality provided by operational (legacy) information systems of the functional activity.

Controls

Functional Activity Program Manager (FAPM)

Description: The FAPM is responsible for executing the functional management process. They take the lead in defining the functional scope of the migration system domain. Their responsibilities include:

- Developing functional architectures and strategic plans, and establishing process, data, and information system baselines
- Leading OSD and DoD Component participants in process improvement
- Evaluating alternatives presented in Functional Economic Analyses (FEAs) and submitting these to PSAs
- Preparing data and technical management plans and presenting these to PSAs
- Executing process and data changes and providing functional management oversight on system changes

Outputs

Required Functionality for the Functional Activity

Description: List of major or mission critical functionality that needs to be provided by an AIS to support the functional activity.

Mechanisms

Migration Strategy Development Team

Description: A Migration Strategy Development Team is responsible for the formulation of a suitable migration system strategy for the functional activity.

A33211212 FORMULATE QUESTIONS THAT REFLECT KEY FUNCTIONAL REQUIREMENTS

Description

The purpose of this activity is to convert the selected set of major legacy system functionality into a set of questions that can be used during a subsequent data collection and analysis phase of the migration selection and implementation activity.

References

Inputs

Required Functionality for the Functional Activity

Description: List of major or mission critical functionality that needs to be provided by an AIS to support the functional activity.

Controls

Functional Activity Program Manager (FAPM)

Description: The FAPM is responsible for executing the functional management process. They take the lead in defining the functional scope of the migration system domain. Their responsibilities include:

- Developing functional architectures and strategic plans, and establishing process, data, and information system baselines
- Leading OSD and DoD Component participants in process improvement
- Evaluating alternatives presented in Functional Economic Analyses (FEAs) and submitting these to PSAs
- Preparing data and technical management plans and presenting these to PSAs
- Executing process and data changes and providing functional management oversight on system changes

Outputs

Questionnaire for Functional Assessment of Legacy Systems

Description: A functional assessment questionnaire is one that is designed to assess the degree to which an automated information system meets the important functional requirements of the functional activity. It answers the basic question of any migration system selection process: Does this system meet the important functional requirements of the activity?

Mechanisms

Migration Strategy Development Team

Description: A Migration Strategy Development Team is responsible for the formulation of a suitable migration system strategy for the functional activity.

A33211213 DETERMINE RELATIVE IMPORTANCE OF MAJOR FUNCTIONALITY

Description

The purpose of this activity is to rank order in terms of overall importance the elements of the set of major legacy system functionality developed earlier. Based on this ranking, the functional questions reflecting that functionality are assigned weights to be used in functional scoring of the legacy system portfolio.

References

Inputs

Questionnaire for Functional Assessment of Legacy Systems

Description: A functional assessment questionnaire is one that is designed to assess the degree to which an automated information system meets the important functional requirements of the functional activity. It answers the basic question of any migration system selection process: Does this system meet the important functional requirements of the activity?

Controls

Functional Activity Program Manager (FAPM)

Description: The FAPM is responsible for executing the functional management process. They take the lead in defining the functional scope of the migration system domain. Their responsibilities include:

- Developing functional architectures and strategic plans, and establishing process, data, and information system baselines
- Leading OSD and DoD Component participants in process improvement
- Evaluating alternatives presented in Functional Economic Analyses (FEAs) and submitting these to PSAs
- Preparing data and technical management plans and presenting these to PSAs
- Executing process and data changes and providing functional management oversight on system changes

Outputs

Assessment Questions and Weights for Functional Assessment Questionnaire

Description: The questions of this iteration of the functional assessment questionnaire are refined and are assigned a weight that reflects the overall important of the functionality with respect to the mission, goals, and objectives of the activity.

Mechanisms

Migration Strategy Development Team

Description: A Migration Strategy Development Team is responsible for the formulation of a suitable migration system strategy for the functional activity.

A33211214 VALIDATE AND OBTAIN FAPM APPROVAL

Description

The purpose of this activity is to obtain the Functional Activity Program Manager's approval of the functional criteria to be used for migration system selection.

References

Inputs

Assessment Questions and Weights for Functional Assessment Questionnaire

Description: The questions of this iteration of the functional assessment questionnaire are refined and are assigned a weight that reflects the overall important of the functionality with respect to the mission, goals, and objectives of the activity.

Controls

Functional Activity Program Manager (FAPM)

Description: The FAPM is responsible for executing the functional management process. They take the lead in defining the functional scope of the migration system domain. Their responsibilities include:

- Developing functional architectures and strategic plans, and establishing process, data, and information system baselines
- Leading OSD and DoD Component participants in process improvement
- Evaluating alternatives presented in Functional Economic Analyses (FEAs) and submitting these to PSAs

- Preparing data and technical management plans and presenting these to PSAs
- Executing process and data changes and providing functional management oversight on system changes

Outputs

Approved Assessment Questions and Weights for Functionality Assessment

Description: Specification of mission critical or otherwise essential functionality of the functional activity.

Mechanisms

Migration Strategy Development Team

Description: A Migration Strategy Development Team is responsible for the formulation of a suitable migration system strategy for the functional activity.

A3321122 ESTABLISH TECHNICAL CRITERIA AND QUESTION SET

Description

The purpose of this activity is to identify the technical factors that are important in the selection of a migration system for the functional activity. The technical view addresses critical aspects of software, hardware, and systems design.

The degree of TAFIM compliance may serve as a preliminary criterion for migration system selection. However, since few legacy systems will exhibit a high level of TAFIM compliance, it will usually be necessary to identify those technical factors that, if present in a legacy system, will facilitate subsequent evolution to a fully-compliant TAFIM environment.

References

Formal Document: <http://www.disa.mil/D7/onlnpubs/eiguide/6.html>

Memo: Complete description of the Legacy Assessment process, including description and rationale of all standard legacy system evaluation criteria.

Formal Document: <http://www.dtic.dla.mil/c3i/tafim.html>

Memo: ASD(C3I) Memorandum, March 30, 1995, Subject: Technical Architecture Framework for Information Management (TAFIM), Version 2.0. The TAFIM provides direction to guide the evolution of DoD's

information systems technical architectures to an open systems environment.

Inputs

Generic Technical Assessment Criteria

Description: The DIST provides a set of generic technical assessment criteria in the "extended core" checklist.

Controls

Technical Integration Manager (TIM)

Description: The Technical Integration Manager (TIM) provides technical support to OSD Principal Staff Assistants (PSAs) and Functional Activity Program Managers (FAPMs).

References

Formal Document: Appendix C, Part 1, Functional Process Improvement, DoD 8020.1-M (Draft) Change 1.

Memo: The roles and responsibilities of the Technical Integration Manager (TIM) are formally presented in Appendix A, Part 3, of DoD 8020.1-M (Draft) Change 1.

Outputs

Technical Assessment Criteria Tailored to the Functional Activity

Description: The generic technical assessment criteria of the "extended core" checklist are tailored to meet any special or otherwise unique technical requirements of the functional activity.

Mechanisms

Migration Strategy Development Team

Description: A Migration Strategy Development Team is responsible for the formulation of a suitable migration system strategy for the functional activity.

A3321123 ESTABLISH DATA-HANDLING CRITERIA AND QUESTION SET

Description

The purpose of this activity is to identify the data-handling factors that are important in the selection of a migration system for the functional activity. These include

the availability of data dictionaries and the extent of current data sharing as well as characteristics of the data itself.

The ability to restructure an information system's data to accord with emerging DoD data element standards is a fundamental migration selection criterion. A selected migration system should also lend itself to data sharing with other applications, both within and outside of the functional activity.

References

Formal Document: <http://www.disa.mil/D7/onlypubs/eiguide/6.html>

Memo: Complete description of the Legacy Assessment process, including description and rationale of all standard legacy system evaluation criteria.

Inputs

Generic Data-Handling Assessment Criteria

Description: The DIST provides a set of generic data-handling assessment criteria in the "extended core" checklist.

Controls

Technical Integration Manager (TIM)

Description: The Technical Integration Manager (TIM) provides technical support to OSD Principal Staff Assistants (PSAs) and Functional Activity Program Managers (FAPMs).

References

Formal Document: Appendix C, Part 1, Functional Process Improvement, DoD 8020.1-M (Draft) Change 1.

Memo: The roles and responsibilities of the Technical Integration Manager (TIM) are formally presented in Appendix A, Part 3, of DoD 8020.1-M (Draft) Change 1.

Outputs

Data-handling Assessment Criteria Tailored to the Functional Activity.

Description: The generic data-handling assessment criteria of the "extended core" checklist are tailored to meet any special or otherwise unique data requirements of the functional activity.

Mechanisms

Migration Strategy Development Team

Description: A Migration Strategy Development Team is responsible for the formulation of a suitable migration system strategy for the functional activity.

A3321124 ESTABLISH PROGRAMMATIC CRITERIA AND QUESTION SET

Description

The purpose of this activity is to identify the programmatic factors that are important in the selection of a migration system for the functional activity.

Programmatic considerations in the evaluation of a legacy system to serve as a migration system may include: existing contractual obligations on the part of the government with respect to the system; resources required to implement the system as the functional activity's migration system; schedule to implement the system as a migration system; acquisition issues associated with implementing the system as a migration system; project management issues, and other considerations as appropriate.

References

Formal Document: <http://www.disa.mil/D7/onlypubs/eiguide/6.html>

Memo: Complete description of the Legacy Assessment process, including description and rationale of all standard legacy system evaluation criteria.

Inputs

Generic Programmatic Assessment Criteria

Description: The DIST provides a set of generic data-handling assessment criteria in the "extended core" checklist.

Controls

Technical Integration Manager (TIM)

Description: The Technical Integration Manager (TIM) provides technical support to OSD Principal Staff Assistants (PSAs) and Functional Activity Program Managers (FAPMs).

References

Formal Document: Appendix C, Part 1, Functional Process Improvement, DoD 8020.1-M (Draft) Change 1.

Memo: The roles and responsibilities of the Technical Integration Manager (TIM) are formally presented in Appendix A, Part 3, of DoD 8020.1-M (Draft) Change 1.

Outputs

Programmatic Assessment Criteria Tailored to the Functional Activity

Description: The generic programmatic assessment criteria of the “extended core” checklist are tailored to meet any special or otherwise unique programmatic requirements of the functional activity.

Mechanisms

Migration Strategy Development Team

Description: A Migration Strategy Development Team is responsible for the formulation of a suitable migration system strategy for the functional activity.

A3321125 VALIDATE AND OBTAIN TIM AND FDAD APPROVAL OF TECHNICAL, DATA-HANDLING, AND PROGRAMMATIC ASSESSMENT CRITERIA

Description

The purpose of this activity is to validate the revised legacy system assessment criteria for the functional activity, and to obtain formal approval by the Technical Integration Manager (TIM) and by the Functional Data Administration (FDAd) (or their functional equivalents).

References

Inputs

Technical Criteria Tailored to the Functional Activity

Description: The generic technical assessment criteria of the “extended core” checklist are tailored to meet any special or otherwise unique technical requirements of the functional activity.

Data-Handling Assessment Criteria Tailored to the Functional Activity

Description: The generic data-handling assessment criteria of the “extended core” checklist are tailored to meet any special or otherwise unique data requirements of the functional activity.

Programmatic Assessment Criteria Tailored to the Functional Activity

Description: The generic programmatic assessment criteria of the “extended core” checklist are tailored to meet any special or otherwise unique programmatic requirements of the functional activity.

Controls

Technical Integration Manager (TIM)

Description: The Technical Integration Manager (TIM) provides technical support to OSD Principal Staff Assistants (PSAs) and Functional Activity Program Managers (FAPMs).

References

Formal Document: Appendix C, Part 1, Functional Process Improvement, DoD 8020.1-M (Draft) Change 1.

Memo: The roles and responsibilities of the Technical Integration Manager (TIM) are formally presented in Appendix A, Part 3, of DoD 8020.1-M (Draft) Change 1.

Functional Data Administrator (FDAd)

Description: The Functional Data Administrator (FDAd) for a functional area is responsible for the integration and management of the data models and standard data elements across functional activities within the functional area.

References

Formal Document: Appendix A, Part 3, Functional Process Improvement, DoD 8020.1-M (Draft) Change 1

Memo: The roles and responsibilities of the Functional Data Administrator (FDAd) are formally presented in Appendix A, Part 3, of DoD 8020.1-M (Draft) Change 1.

Outputs

Legacy Systems Assessment Questionnaire

Description: The approved Legacy System Assessment Questionnaire for the Functional Activity contains both generic (common denominator) legacy system assessment questions and questions that reflect aspects of the

functional activity that are considered very important to the accomplishment of the activity's mission.

Mechanisms

A33212 GATHER DATA

Description

The purpose of this activity is to collect, compile, and analyze the legacy system assessment data necessary to begin developing feasible migration system alternatives.

References

Inputs

List of Candidate Migration Systems

Description: A list of candidate migration systems that will be subjected to rigorous assessments to determine a single (or combination) migration system for the functional activity. This list will probably be a subset of the list of all legacy applications currently associated with the functional activity. It may include, however, legacy systems that are "officially" assigned to other functional activities.

Legacy Systems Assessment Questionnaire

Description: The Approved Legacy System Assessment Questionnaire for the Functional Activity contains both generic (common denominator) legacy system assessment questions and questions that reflect aspects of the functional activity that are considered very important to the accomplishment of the activity's mission.

Description of Legacy System Environment

Description: An in-depth characterization of the current legacy system environment of the functional activity is the principal input for this activity.

Controls

Functional Activity Program Manager (FAPM)

Description: The FAPM is responsible for executing the functional management process. They take the lead in defining the functional scope of the migration system domain. Their responsibilities include:

- Developing functional architectures and strategic plans, and establishing process, data, and information system baselines

- Leading OSD and DoD Component participants in process improvement
- Evaluating alternatives presented in Functional Economic Analyses (FEAs) and submitting these to PSAs
- Preparing data and technical management plans and presenting these to PSAs
- Executing process and data changes and providing functional management oversight on system changes

Technical Integration Manager (TIM)

Description: The Technical Integration Manager (TIM) provides technical support to OSD Principal Staff Assistants (PSAs) and Functional Activity Program Managers (FAPMs).

References

Formal Document: Appendix C, Part 1, Functional Process Improvement, DoD 8020.1-M (Draft) Change 1.

Memo: The roles and responsibilities of the Technical Integration Manager (TIM) are formally presented in Appendix A, Part 3, of DoD 8020.1-M (Draft) Change 1.

Outputs

Legacy Systems Assessment Results

Description: The data from the completed legacy system assessment questionnaires are entered into the DIST Migration Assessment Tool for automatic scoring.

Mechanisms

Migration Assessment Tool (MAT)

Description: The Migration Assessment Tool (MAT) (part of the DIST Decision Support System) in conjunction with the Migration Assessment Editor (MAE) is recommended for the compilation and analysis of this preliminary assessment data. The MAE is used to enter assessment data into a permanent database of assessment data that can be used by the MAT for assessment (scoring). The MAT is then used to automatically score each legacy application whose assessment data has been entered via the MAE.

Migration Strategy Development Team

Description: A Migration Strategy Development Team is responsible for the formulation of a suitable migration system strategy for the functional activity.

A332121 CONDUCT QUESTIONNAIRE SURVEY

Description

The purpose of this activity is to obtain the information needed to develop migration system alternatives. Typically, the legacy system questionnaire is used to collect preliminary data.

References

Inputs

Legacy Systems Assessment Questionnaire

Descriptions: The approved Legacy System Assessment Questionnaire for the Functional Activity contains both generic (common denominator) legacy system assessment questions and questions that reflect aspects of the functional activity that are considered very important to the accomplishment of the activity's mission.

List of Candidate Migration Systems

Description: A list of candidate migration systems that will be subjected to rigorous assessments to determine a single (or combination) migration system for the functional activity. This list will probably be a subset of the list of all legacy applications currently associated with the functional activity. It may include, however, legacy systems that are "officially" assigned to other functional activities.

Description of Legacy System Environment

Description: An in-depth characterization of the current legacy system environment of the functional activity is the principal input for this activity.

Controls

Functional Activity Program Manager (FAPM)

Description: The FAPM is responsible for executing the functional management process. They take the lead in defining the functional scope of the migration system domain. Their responsibilities include:

- Developing functional architectures and strategic plans, and establishing process, data, and information system baselines
- Leading OSD and DoD Component participants in process improvement
- Evaluating alternatives presented in Functional Economic Analyses (FEAs) and submitting these to PSAs

- Preparing data and technical management plans and presenting these to PSAs
- Executing process and data changes and providing functional management oversight on system changes

Technical Integration Manager (TIM)

Description: The Technical Integration Manager (TIM) provides technical support to OSD Principal Staff Assistants (PSAs) and Functional Activity Program Managers (FAPMs).

References

Formal Document: Appendix C, Part 1, Functional Process Improvement, DoD 8020.1-M (Draft) Change 1.

Memo: The roles and responsibilities of the Technical Integration Manager (TIM) are formally presented in Appendix A, Part 3, of DoD 8020.1-M (Draft) Change 1.

Outputs

Completed Assessment Questionnaire

Description: The Legacy System Assessment Questionnaires are completed by those in the functional and technical community within the functional activity who are most familiar with the particular legacy information system being assessed.

Mechanisms

Migration Strategy Development Team

Description: A Migration Strategy Development Team is responsible for the formulation of a suitable migration system strategy for the functional activity.

A332122 COMPILE AND ANALYZE LEGACY SYSTEMS ASSESSMENT RESULTS

Description

The purpose of this activity is to reduce the amount of data obtained during A332121 to a usable set and to perform the analysis necessary to plan the next step in migration system selection process.

The Migration Assessment Tool (MAT) (part of the DIST Decision Support System) in conjunction with the Migration Assessment Editor (MAE) is recommended for

the compilation and analysis of this preliminary assessment data. The MAE is used to enter assessment data into a permanent database of assessment data that can be used by the MAT for assessment (scoring). The MAT is then used to automatically score each legacy application whose assessment data has been entered via the MAE.

References

Formal Document: DIST Operating Guide, Chapter 4: Migration Assessment Tool

Memo: This section of the Chapter 4 of the DIST Operating Guide provides detailed instruction on the use of the Migration Assessment Tool.

Formal Document: DIST Operating Guide, Chapter 4: The Migration Assessment Editor

Memo: This section of the Chapter 4 of the DIST Operating Guide provides detailed instruction on the use of the Migration Assessment Editor.

Inputs

Completed Assessment Questionnaire

Description: The Legacy System Assessment Questionnaires are completed by those in the functional and technical community within the functional activity who are most familiar with the particular legacy information system being assessed.

Controls

Technical Integration Manager (TIM)

Description: The Technical Integration Manager (TIM) provides technical support to OSD Principal Staff Assistants (PSAs) and Functional Activity Program Managers (FAPMs).

References

Formal Document: Appendix C, Part 1, Functional Process Improvement, DoD 8020.1-M (Draft) Change 1.

Memo: The roles and responsibilities of the Technical Integration Manager (TIM) are formally presented in Appendix A, Part 3, of DoD 8020.1-M (Draft) Change 1.

Outputs

Legacy Systems Assessment Results

Description: The data from the completed legacy system assessment questionnaires are entered into the DIST Migration Assessment Tool for automatic scoring.

Mechanisms

Migration Assessment Tool (MAT)

Description: The Migration Assessment Tool (MAT) (part of the DIST Decision Support System) in conjunction with the Migration Assessment Editor (MAE) is recommended for the compilation and analysis of this preliminary assessment data. The MAE is used to enter assessment data into a permanent database of assessment data that can be used by the MAT for assessment (scoring). The MAT is then used to automatically score each legacy application whose assessment data has been entered via the MAE.

Migration Strategy Development Team

Description: A Migration Strategy Development Team is responsible for the formulation of a suitable migration system strategy for the functional activity.

A33213 CONDUCT CROSS-FUNCTIONAL ASSESSMENT

Description

The purpose of this activity is to ensure that the issue of "cross-functionality" is properly taken into account during the development of migration system strategy for a functional activity. There are two principal aims of the cross-functional assessment process:

- (1) Identify functional and/or data redundancy of legacy systems across functional activities, and
- (2) Identify functional and/or dependencies between legacy systems across functional activities.

The Defense Integration Support Tools' (DIST) Migration Assessment Tool (MAT) supports the cross-functional assessment process. The MAT assesses the degree of cross-functionality among legacy and migration applications. The MAT also protects against cross-functionality being compromised by the consolidation or elimination of applications.

References

Formal Document: <http://www.disa.mil/D7/onlypubs/eiguide/8.html>

Memo: This document (section 8 of DISA's EI Guide) presents a good overview of the concept of cross-functional integration and the cross-functional support capabilities of the DIST.

Inputs

Legacy Systems Assessment Results

Description: The data from the completed legacy system assessment questionnaires are entered into the DIST Migration Assessment Tool for automatic scoring.

Controls

Functional Activity Program Manager (FAPM)

Description: The FAPM is responsible for executing the functional management process. They take the lead in defining the functional scope of the migration system domain. Their responsibilities include:

- Developing functional architectures and strategic plans, and establishing process, data, and information system baselines
- Leading OSD and DoD Component participants in process improvement
- Evaluating alternatives presented in Functional Economic Analyses (FEAs) and submitting these to PSAs
- Preparing data and technical management plans and presenting these to PSAs
- Executing process and data changes and providing functional management oversight on system changes

Technical Integration Manager (TIM)

Description: The Technical Integration Manager (TIM) provides technical support to OSD Principal Staff Assistants (PSAs) and Functional Activity Program Managers (FAPMs).

References

Formal Document: Appendix C, Part 1, Functional Process Improvement, DoD 8020.1-M (Draft) Change 1.

Memo: The roles and responsibilities of the Technical Integration Manager (TIM) are formally presented in Appendix A, Part 3, of DoD 8020.1-M (Draft) Change 1.

Outputs

MAT Cross-Functional Assessment Results

Description: The MAT's Cross-Functional Assessment Reports provide information on the degree of cross-functional integration among legacy and migration applications. These results can be summarized at a variety of relevant levels, including functional activity, functional area, and mission.

Mechanisms

Defense Integration Support Tools (DIST)

Description: The Defense Integration Support Tools (DIST) is the primary tool provided by DISA to facilitate Enterprise Integration management and documentation. It supports legacy system assessment and preparation of migration strategies and migration plans.

The DIST is an analytical decision support tool that can be used to expedite preparation of the EI documentation used to make informed business decisions. The DIST captures and maintains pertinent system information, including data used in modeling and simulation.

References

Formal Document: <http://www.disa.mil/D7/onlinepubs/eiguide/2.html>

Memo: This document (section 2 of DISA's EI Guide) presents a good overview of the features and capabilities of the DIST.

Migration Strategy Development Team

Description: A Migration Strategy Development Team is responsible for the formulation of a suitable migration system strategy for the functional activity.

A33214 DEVELOP MIGRATION ALTERNATIVES

Description

The purpose of this activity is to formulate a set of migration options to be subjected to further analysis. In many ways, this is the key activity in the migration system selection process.

Migration solutions may include:

- (1) Selection of a single complete legacy system (i.e., data, application, and infrastructure) as the migration system
- (2) Selection of single legacy application and data model ported to different infrastructure

- (3) Combination of several legacy applications with a common data model on a single infrastructure
- (4) Combination of several partial legacy applications

Depending on the legacy system consolidation approach, a number of common technical strategies can be employed, including the use of subject area or shared databases, middleware, false front technologies, new communications topologies, and COTS products.

One problem that sometimes arises in migration system selection is that legacy systems are often at the center of ongoing development or reengineering efforts. Major plans are usually underway—sometimes well along—for the development of what amounts to the replacement system for one or more of the major legacy systems under consideration for migration system selection. This becomes a problem because it is often thought that these replacement systems need to be considered in the migration selection process. So, instead of a seemingly straight-forward assessment of (let's say) three legacy systems, L1, L2, and L3, it becomes necessary to evaluate the planned replacement systems, L1* and L2*, as well, where L1* and L2* are the systems being designed and implemented to replace L1 and L2. Proponents of the legacy systems L1 and L2 will argue, moreover, that it is not L1 and L2 that should be considered as the migration system for the functional activity, but rather L1* and L2*, since it is these new system that are intended to replace—in the near- to mid-term—the admittedly obsolete stovepipes, L1 and L2. This sort of situation adds significantly to the complexity of the migration system selection process and is quite common. These replacement systems will generally score very high using any assessment criteria that does not assign an overly high weight to the fact that the system is an actual, on-line, functionally AIS. L1* and L2*, for example, will almost certainly score higher in all respects than L1, L2, or L3. The selection process, then, usually becomes a detailed comparison of L1* and L2*, with one of the replacement systems being selected as the functional activity's "migration system" even though it is not technically a migration system at all. The recommendation then becomes to stop further development work on all legacy systems and on any replacement system except for the one chosen as the "migration system." The problem that arises is that no further consolidation is undertaken; all existing legacy systems stay in place until the new system is fully in place. The goal of "rapid" functional activity consolidation and standardization to a single migration system is deferred until the chosen replacement system becomes operational, and, as everyone knows, any major development effort is plagued with unforeseen schedule delays. If previously planned development efforts are to be factored

into the migration system selection process, then the standardization on an existing, operational legacy system in the functional activity in the short-term—along with the anticipated cost savings from such standardization—is highly unlikely! The only short-term positive outcome from such a scenario is the cut-off of all further development work on all legacy systems in favor of continued development activity on the “selected migration system.”

There is the option, of course, not to consider legacy system replacement plans during the selection process in order to expedite the selection of a (single) migration system so that consolidation of legacy applications can be undertaken as quickly as possible. This approach leaves any development efforts in an uneasy limbo until a final selection decision is made. It also means that resources have to be put into the effort to move to a migration system that everyone knows is to be eventually replaced—and probably in the near-term. But there seems to be no way of getting around it, and this scenario must be considered in the migration systems selection process. The tradeoff between the benefits—and costs—of immediate consolidation and deferment of immediate standardization in favor of a much better, albeit future system has to be part of the analysis process.

References

Guidelines: <http://www.disa.mil/D7/onlypubs/eiguide/5.html>

Memo: This document (section 5 of DISA’s EI Guide) contains an excellent set of Guidelines for the development of a migration strategy for a functional activity.

Inputs

MAT Cross-Functional Assessment Results

Description: The MAT’s Cross-Functional Assessment Reports provide information on the degree of cross-functional integration among legacy and migration applications. These results can be summarized at a variety of relevant levels, including functional activity, functional area, and mission.

Legacy System Assessment Results

Description: The data from the completed legacy system assessment questionnaires are entered into the DIST Migration Assessment Tool for automatic scoring.

Controls

Functional Activity Program Manager (FAPM)

Description: The FAPM is responsible for executing the functional management process. They take the lead in defining the functional scope of the migration system domain. Their responsibilities include:

- Developing functional architectures and strategic plans, and establishing process, data, and information system baselines
- Leading OSD and DoD Component participants in process improvement
- Evaluating alternatives presented in Functional Economic Analyses (FEAs) and submitting these to PSAs
- Preparing data and technical management plans and presenting these to PSAs
- Executing process and data changes and providing functional management oversight on system changes

Technical Integration Manager (TIM)

Description: The Technical Integration Manager (TIM) provides technical support to OSD Principal Staff Assistants (PSAs) and Functional Activity Program Managers (FAPMs).

References

Formal Document: Appendix C, Part 1, Functional Process Improvement, DoD 8020.1-M (Draft) Change 1.

Memo: The roles and responsibilities of the Technical Integration Manager (TIM) are formally presented in Appendix A, Part 3, of DoD 8020.1-M (Draft) Change 1.

Outputs

Set of Migration Alternatives

Description: The set of migration alternatives is a description of three or four major alternatives to be given serious consideration as the migration system strategy for the functional activity.

Mechanisms

Migration Strategy Development Team

Description: A Migration Strategy Development Team is responsible for the formulation of a suitable migration system strategy for the functional activity.

A33215 ANALYZE MIGRATION ALTERNATIVES

Description

The purpose of this activity is to analyze each of the migration alternatives with the aim of recommending the best overall solution for implementation.

The migration strategy and its justification is documented in a Functional Economic Analysis/Integration Decision Paper (FEA/IDP).

References

Formal Document: <http://www.disa.mil/D7/onlypubs/eiguide/9.html>

Memo: Description of the Functional Economic Analysis Integration Decision Paper (FEA/IDP) from the EI Guide.

Inputs

Set of Migration Alternatives

Description: The set of migration alternatives is a description of three or four major alternatives to be given serious consideration as the migration system strategy for the functional activity.

Legacy Systems Assessment Results

Description: The data from the completed legacy system assessment questionnaires are entered into the DIST Migration Assessment Tool for automatic scoring.

Controls

Functional Activity Program Manager (FAPM)

Description: The FAPM is responsible for executing the functional management process. They take the lead in defining the functional scope of the migration system domain. Their responsibilities include:

- Developing functional architectures and strategic plans, and establishing process, data, and information system baselines
- Leading OSD and DoD Component participants in process improvement
- Evaluating alternatives presented in Functional Economic Analyses (FEAs) and submitting these to PSAs
- Preparing data and technical management plans and presenting these to PSAs
- Executing process and data changes and providing functional management oversight on system changes

Technical Integration Manager (TIM)

Description: The Technical Integration Manager (TIM) provides technical support to OSD Principal Staff Assistants (PSAs) and Functional Activity Program Managers (FAPMs).

References

Formal Document: Appendix C, Part 1, Functional Process Improvement, DoD 8020.1-M (Draft) Change 1.

Memo: The roles and responsibilities of the Technical Integration Manager (TIM) are formally presented in Appendix A, Part 3, of DoD 8020.1-M (Draft) Change 1.

Functional Data Administrator (FDAd)

Description: The Functional Data Administrator (FDAd) for a functional area is responsible for the integration and management of the data models and standard data elements across functional activities within the functional area.

References

Formal Document: Appendix A, Part 3, Functional Process Improvement, DoD 8020.1-M (Draft) Change 1

Memo: The roles and responsibilities of the Functional Data Administrator (FDAd) are formally presented in Appendix A, Part 3, of DoD 8020.1-M (Draft) Change 1.

Principal Staff Assistants (PSAs)

Description: OSD PSAs are responsible for implementing the DoD information management program within their functional areas and activities. Their focus is from a functional perspective. PSAs develop functional objectives for each of their functional areas and activities. In addition, they provide guidance and analytical support for improving processes, data, and supporting information systems to satisfy those objectives. PSAs are also responsible for implementing changes to streamline operations and improve cost-effectiveness. PSAs designate FAPMs to assist in this implementation.

Directorate for Enterprise Integration (DISA/D7)

Description: The Directorate for Enterprise Integration is the primary supporting agency for the EI Corporate Management Council. Working closely with OASD(C3I), the EI office publishes and maintains EI strategy and implementation plans for the DoD. As decisions are made and approved, the EI office records the decisions and supporting implementation strategies. The EI office documents the EI process and maintains information for management review and prioritization on resourcing, data strategies,

migration systems, proofs-of-concept, cross-functional programs, and technical infrastructure implementation within the DII.

Outputs

Functional Economic Analysis/Integration Decision Paper

Description: The FEA/IDP is used in the EI decision process to recommend and justify migration system selection.

General Implementation Plans for Each Migration Alternative

Description: The general implementation plans for each migration system alternative will outline the systems and network architecture necessary for the alternative, the timeframe for the migration and implementation effort, and operational changes, if any, given the alternative.

Mechanisms

FEA/IDP Tool

Description: The FEA/IDP tool (which is part of the DIST) is used to create an FEA/TIP for a set of candidate migration systems and a functional activity. It automatically incorporates relevant data from the DIST (if available). The IDP/IDP tool uses a template from Microsoft Word for Windows 6.0 to create the FEA/IDP document. Using Microsoft Word for Windows (or another word processing package), the document may be edited further to add specific application information not provided by the DIST.

Migration Strategy Development Team

Description: A Migration Strategy Development Team is responsible for the formulation of a suitable migration system strategy for the functional activity.

A332151 PERFORM FUNCTIONAL, TECHNICAL, DATA HANDLING, AND PROGRAMMATIC ASSESSMENT

Description

This activity is basically the documentation of the analysis, results, and recommendations of A33212.

References

Formal Document: <http://www.disa.mil/D7/onlypubs/eiguide/6.html>

Memo: Complete description of the Legacy Assessment process, including description and rationale of all standard legacy system evaluation criteria.

Inputs

Legacy Systems Assessment Results

Description: The data from the completed legacy system assessment questionnaires are entered into the DIST Migration Assessment Tool for automatic scoring.

Controls

Functional Activity Program Manager (FAPM)

Description: The FAPM is responsible for executing the functional management process. They take the lead in defining the functional scope of the migration system domain. Their responsibilities include:

- Developing functional architectures and strategic plans, and establishing process, data, and information system baselines
- Leading OSD and DoD Component participants in process improvement
- Evaluating alternatives presented in Functional Economic Analyses (FEAs) and submitting these to PSAs
- Preparing data and technical management plans and presenting these to PSAs
- Executing process and data changes and providing functional management oversight on system changes

Technical Integration Manager (TIM)

Description: The Technical Integration Manager (TIM) provides technical support to OSD Principal Staff Assistants (PSAs) and Functional Activity Program Managers (FAPMs).

References

Formal Document: Appendix C, Part 1, Functional Process Improvement, DoD 8020.1-M (Draft) Change 1.

Memo: The roles and responsibilities of the Technical Integration Manager (TIM) are formally presented in Appendix A, Part 3, of DoD 8020.1-M (Draft) Change 1.

Outputs

Migration Alternatives Analysis

Description: Documentation of the functional, technical, data handling, and programmatic assessment of migration alternatives suitable for inclusion in the IDP/FEA.

Mechanisms

Migration Strategy Development Team

Description: A Migration Strategy Development Team is responsible for the formulation of a suitable migration system strategy for the functional activity.

A332152 DEVELOP INITIAL IMPLEMENTATION PLAN

Description

The purpose of this activity is to enable the development of a preliminary cost estimates for implementing each of the migration system alternatives. Implementation plans for each major migration system alternative are outlined; typically these plans will sketch the envisaged systems and network architecture; they will provide an estimate of the time necessary to implement the designated migration system and to migrate the users of the other legacy systems to the migration system; and they will discuss the extent and nature of any operational changes that standardization on a particular migration alternative will have for the functional activity.

References

Formal Document: <http://www.disa.mil/D7/onlypubs/eiguide/10.html>

Memo: Guidelines for the development of a Tactical Integration Plan (TIP).

Inputs

Migration Alternatives Analysis

Description: Documentation of the functional, technical, data handling, and programmatic assessment of migration alternatives suitable for inclusion in the IDP/FEA.

Set of Migration Alternatives

Description: The set of migration alternatives is a description of three or four major alternatives to be given serious consideration as the migration system strategy for the functional activity.

Controls

Technical Integration Manager (TIM)

Description: The Technical Integration Manager (TIM) provides technical support to OSD Principal Staff Assistants (PSAs) and Functional Activity Program Managers (FAPMs).

References

Formal Document: Appendix C, Part 1, Functional Process Improvement, DoD 8020.1-M (Draft) Change 1.

Memo: The roles and responsibilities of the Technical Integration Manager (TIM) are formally presented in Appendix A, Part 3, of DoD 8020.1-M (Draft) Change 1.

Outputs

General Implementation Plans for Each Migration Alternative

Description: The general implementation plans for each migration system alternative will outline the systems and network architecture necessary for the alternative, the timeframe for the migration and implementation effort, and operational changes, if any, given the alternative.

Mechanisms

Migration Strategy Development Team

Description: A Migration Strategy Development Team is responsible for the formulation of a suitable migration system strategy for the functional activity.

A332153 ECONOMIC ANALYSIS OF MIGRATION ALTERNATIVES

Description

The purpose of this activity is to provide the financial justification necessary to support a recommended migration strategy. Costs for each alternative must be determined so that the most cost-effective alternative—all other factors being equal—can be recommended for migration. The projected costs for each migration system alternative are developed using the general implementation plans that result from activity A332152. The two major cost categories are implementation (design, development, data conversion, etc.) and operations and maintenance (O&M).

References

Inputs

General Implementation Plans for Each Migration Alternative

Description: The general implementation plans for each migration system alternative will outline the systems and network architecture necessary for the alternative, the timeframe for the migration and implementation effort, and operational changes, if any, given the alternative.

Controls

Technical Integration Manager (TIM)

Description: The Technical Integration Manager (TIM) provides technical support to OSD Principal Staff Assistants (PSAs) and Functional Activity Program Managers (FAPMs).

References

Formal Document: Appendix C, Part 1, Functional Process Improvement, DoD 8020.1-M (Draft) Change 1.

Memo: The roles and responsibilities of the Technical Integration Manager (TIM) are formally presented in Appendix A, Part 3, of DoD 8020.1-M (Draft) Change 1.

Outputs

Estimated Cost Analysis/Comparison of Migration Alternatives

Description: The economic analysis of migration alternatives typically contains three subsections: baseline information technology costs (i.e., the cost of continuing business as usual); a cost comparison of migration alternatives, comparing the annual operations and maintenance cost of each alternative with the annual cost of operations and maintenance of the baseline environment; and annual cost reductions achievable for each alternative by fiscal year.

Mechanisms

Functional Economic Analysis Model (FEAM)

Description: The Functional Economic Analysis Model (FEAM) is an automated tool that uses a standard DoD cost breakdown structure for automated information systems. It contains a number of good financial analysis tools that can facilitate the economic analysis of migration system alternatives.

Functional Economic Analysis/Integrated Decision Paper Tool

Description: The tool, Integrated Decision Paper for Migration Systems Selection (in Word format), provides a format for documenting the selection. It can be downloaded into the user's computer and filled in with project information per detailed instructions.

Reference:

Template: <http://www.dtic.dla.mil/c3i/oringref/idpsam.doc>

Memo: This is a template (in Word format) for documenting a migration strategy for a functional activity.

Migration Strategy Development Team

Description: A Migration Strategy Development Team is responsible for the formulation of a suitable migration system strategy for the functional activity.

A332154 PERFORM RISK ANALYSIS

Description

The purpose of this activity is to conduct a risk analysis on the set of migration alternatives. The risk assessment is a critical aspect of the FEA/IDP analysis process for it alerts management of potential high risk areas that may become problematic during migration system implementation.

Tasks

- (1) Identify Major Risk Areas
- (2) Develop Recommendations to Reduce Risk
- (3) Develop Contingency Plans

References

Inputs

Set of Migration Alternatives

Description: The set of migration alternatives is a description of three or four major alternatives to be given serious consideration as the migration system strategy for the functional activity.

Controls

Technical Integration Manager (TIM)

Description: The Technical Integration Manager (TIM) provides technical support to OSD Principal Staff Assistants (PSAs) and Functional Activity Program Managers (FAPMs).

References

Formal Document: Appendix C, Part 1, Functional Process Improvement, DoD 8020.1-M (Draft) Change 1.

Memo: The roles and responsibilities of the Technical Integration Manager (TIM) are formally presented in Appendix A, Part 3, of DoD 8020.1-M (Draft) Change 1.

Outputs

Risk Analysis Results

Description: These risk analysis results consist of a list of all major risk areas; a set of recommendations for reducing the level of risk of each major risk area; and contingency plans for dealing with any untoward events that may arise and that seriously jeopardize the success of the migration effort.

Mechanisms

Migration Strategy Development Team

Description: A Migration Strategy Development Team is responsible for the formulation of a suitable migration system strategy for the functional activity.

A332155 IMPACTS, ISSUES, AND CONCERNS

Description

The purpose of this activity is to attempt to identify potential cross-functional impacts and issues resulting from legacy system interfaces with other system (data or functions) that may not be supported in the migration system. Six more or less specific cross-functional issues and potential impacts ought to be considered when conducting this activity; these are addressed in the steps which this activity comprises.

Tasks

- (1) Analyze Organizational Impacts
- (2) Analyze Personnel Impacts

- (3) Analyze Operational Impacts
- (4) Analyze Financial Impacts
- (5) Issues and Resolution
- (6) Other Concerns

References

Inputs

Set of Migration Alternatives

Description: The set of migration alternatives is a description of three or four major alternatives to be given serious consideration as the migration system strategy for the functional activity.

Controls

Technical Integration Manager (TIM)

Description: The Technical Integration Manager (TIM) provides technical support to OSD Principal Staff Assistants (PSAs) and Functional Activity Program Managers (FAPMs).

References

Formal Document: Appendix C, Part 1, Functional Process Improvement, DoD 8020.1-M (Draft) Change 1.

Memo: The roles and responsibilities of the Technical Integration Manager (TIM) are formally presented in Appendix A, Part 3, of DoD 8020.1-M (Draft) Change 1.

Outputs

Statement of Impacts, Issues, and Concerns

Description: Possible impacts of the migration strategy with respect to organizational, personnel, operational, and financial aspects of the functional activity are documented at the conclusion of this task. Personnel issues include the possibility of changes in the personnel mix of the organization, including whether people will need to be retrained and/or reassigned. Operational impacts arise from a significantly changed way of doing business caused by the implementation of the designated migration system. Financial impacts stem from the significant alteration of the baseline given the implementation of the migration system. Although significantly lower operating costs can be expected from a AIS consolidation effort in the near- and long-term, such an initiative usually demands a considerable front-end

investment; resources for the necessary implementation effort may not be readily available. Any other issues or concerns that arose in the alternatives analysis and implementation planning process should also be documented here.

Mechanisms

Migration Strategy Development Team

Description: A Migration Strategy Development Team is responsible for the formulation of a suitable migration system strategy for the functional activity.

A332156 DOCUMENT MIGRATION SYSTEM SELECTION DECISION AND OBTAIN APPROVAL

Description

The purpose of this activity is to formally document the results of A332151 through A332155 in an Integrated Decision Paper (IDP) and obtain approval for the recommended migration strategy.

References

Formal Document: <http://www.disa.mil/D7/onlnpubs/eiguide/9.html>

Description: Description of the Functional Economic Analysis/Integration Decision Paper (FEA/IDP) from the EI Guide.

Inputs

Set of Migration Alternatives

Description: The set of migration alternatives is a description of three or four major alternatives to be given serious consideration as the migration system strategy for the functional activity.

Migration Alternatives Analysis

Description: Documentation of the functional, technical, data handling, and programmatic assessment of migration alternatives suitable for inclusion in the IDP/FEA.

Estimated Cost Analysis/Comparison of Migration Alternatives

Description: The economic analysis of migration alternatives typically contains three subsections: baseline information technology costs (i.e., the cost of continuing business as usual); a cost comparison of migration alternatives, comparing the annual operations and maintenance cost of each

alternative with the annual cost of operations and maintenance of the baseline environment; and annual cost reductions achievable for each alternative by fiscal year.

Risk Analysis Results

Description: These risk analysis results consist of a list of all major risk areas; a set of recommendations for reducing the level of risk of each major risk area; and contingency plans for dealing with any untoward events that may arise and that seriously jeopardize the success of the migration effort.

Statement of Impacts, Issues, and Concerns

Description: Possible impacts of the migration strategy with respect to organizational, personnel, operational, and financial aspects of the functional activity are documented at the conclusion of this task. Personnel issues include the possibility of changes in the personnel mix of the organization, including whether people will need to be retrained and/or reassigned. Operational impacts arise from a significantly changed way of doing business caused by the implementation of the designated migration system. Financial impacts stem from the significant alteration of the baseline given the implementation of the migration system. Although significantly lower operating costs can be expected from a AIS consolidation effort in the near- and long-term, such an initiative usually demands a considerable front-end investment; resources for the necessary implementation effort may not be readily available. Any other issues or concerns that arose in the alternatives analysis and implementation planning process should also be documented here.

Controls

Principal Staff Assistants (PSAs)

Description: OSD PSAs are responsible for implementing the DoD information management program within their functional areas and activities. Their focus is from a functional perspective. PSAs develop functional objectives for each of their functional areas and activities. In addition, they provide guidance and analytical support for improving processes, data, and supporting information systems to satisfy those objectives. PSAs are also responsible for implementing changes to streamline operations and improve cost-effectiveness. PSAs designate FAPMs to assist in this implementation.

Technical Integration Manager (TIM)

Description: The Technical Integration Manager (TIM) provides technical support to OSD Principal Staff Assistants (PSAs) and Functional Activity Program Managers (FAPMs).

References

Formal Document: Appendix C, Part 1, Functional Process Improvement, DoD 8020.1-M (Draft) Change 1.

Memo: The roles and responsibilities of the Technical Integration Manager (TIM) are formally presented in Appendix A, Part 3, of DoD 8020.1-M (Draft) Change 1.

Functional Activity Program Manager (FAPM)

Description: The FAPM is responsible for executing the functional management process. They take the lead in defining the functional scope of the migration system domain. Their responsibilities include:

- Developing functional architectures and strategic plans, and establishing process, data, and information system baselines
- Leading OSD and DoD Component participants in process improvement
- Evaluating alternatives presented in Functional Economic Analyses (FEAs) and submitting these to PSAs
- Preparing data and technical management plans and presenting these to PSAs
- Executing process and data changes and providing functional management oversight on system changes

Functional Data Administrator (FDAd)

Description: The Functional Data Administrator (FDAd) for a functional area is responsible for the integration and management of the data models and standard data elements across functional activities within the functional area.

References

Formal Document: Appendix A, Part 3, Functional Process Improvement, DoD 8020.1-M (Draft) Change 1

Memo: The roles and responsibilities of the Functional Data Administrator (FDAd) are formally presented in Appendix A, Part 3, of DoD 8020.1-M (Draft) Change 1.

Outputs

Functional Economic Analysis/Integration Decision Paper

Description: The FEA/IDP is used in the EI decision process to recommend and justify migration system selection.

Mechanisms

Functional Economic Analysis/Integrated Decision Paper Tool

Description: The tool, Integrated Decision Paper for Migration Systems Selection (in Word format), provides a format for documenting the selection. It can be downloaded into the user's computer and filled in with project information per detailed instructions.

Reference:

Template: <http://www.dtic.dla.mil/c3i/oringref/idpsam.doc>

Memo: This is a template (in Word format) for documenting a migration strategy for a functional activity.

Migration Strategy Development Team

Description: A Migration Strategy Development Team is responsible for the formulation of a suitable migration system strategy for the functional activity.

A33216 DEVELOP MIGRATION SYSTEM IMPLEMENTATION PLAN

Description

The purpose of this activity is to develop an appropriately detailed Tactical Implementation Plan for the approved migration strategy for the functional activity.

The Tactical Integration Plan (TIP) identifies the high-level tasks to be performed in order to migrate the functional activity to the designated migration system. It also identifies the entity with primary responsibility for the execution of the task and estimates the required resources, in both time and money.

The TIP provides a road map for the actual process of integrating legacy applications into a single designated migration system. Accordingly, it addresses all three components of an automated information system: application, data, and infrastructure. The TIP is used by organizations tasked with the execution of the migration plan to develop more detailed and specific execution plans. The TIP demonstrates both the technical and practical feasibility of the planned migration effort. It demonstrates not only that legacy application customers can be successfully moved onto the designated migration system, but that that migration effort can be accomplished in a timely and cost-effective manner. The TIP also ensures that cross-functional requirements are addressed during the migration effort. It also helps to ensure that relevant principles of the Technical Architecture for Information Management (TAFIM) are adhered to during the tactical integration phase of the migration effort.

The intended audience for the TIP consists of OSD Principal Staff Assistants (PSAs), the Functional Activity Program Manager (FAPM), the Cross-Integration Assessment Council, and the various organizations (e.g., DISA/D3, etc.) responsible for the subsequent execution of the plan. The TIP is prepared under the direction of the relevant functional area Integration Manager (IM) of the Directorate for Enterprise Integration.

A TIP is prepared for each functional activity (or subactivity) for which a migration effort is required (within a functional area). Accordingly, the TIP defines tactical integration tasks for the designated migration system and each legacy system. The TIP will describe new technology insertion, reengineering, or other modernization efforts that are planned as part of (and to be carried on concurrently with) the overall migration project. Particular attention is drawn to aspects of the integration plan that address deficiencies of the designated migration system uncovered during the migration assessment effort.

Since a single TIP will address the integration plans of each legacy system that is being migrated to (integrated with) the designated migration system, it itself will be an integrating vehicle, ensuring the integration of all technical plans for the migration effort. It will help guarantee the compatibility of the various application, data, and infrastructure integration plans.

The results of this activity are documented in a Tactical Implementation Plan (TIP).

The TIP approval signature of the cognizant Functional Area Program Manager (or the cognizant Principal Staff Assistant) certifies functional area approval of the proposed implementation plan.

The TIP approval signature of the cognizant Principal Staff Assistant (or the cognizant Functional Area Program Manager) certifies functional area approval of the proposed implementation plan.

References

Formal Document: <http://www.disa.mil/D7/onlypubs/eiguide/10.html>

Memo: Guidelines for the development of a Tactical Integration Plan (TIP).

Formal Document: <http://www.dtic.mil:80/c3i/pbrcd/3003s8.html>

Memo: Section 8 of the DoD Framework for Managing Process Improvement provides excellent guidance—in subsection 8.5 (Step 20:

Design System Integration Plan)—for development of a Tactical Integration Plan (TIP).

Inputs

Functional Economic Analysis/Integration Decision Paper

Description: The FEA/IDP is used in the EI decision process to recommend and justify migration system selection.

General Implementation Plans for Each Migration Alternative

Description: The general implementation plans for each migration system alternative will outline the systems and network architecture necessary for the alternative, the timeframe for the migration and implementation effort, and operational changes, if any, given the alternative.

MAT Cross-Functional Assessment Results

Description: The MAT's Cross-Functional Assessment Reports provide information on the degree of cross-functional integration among legacy and migration applications. These results can be summarized at a variety of relevant levels, including functional activity, functional area, and mission.

Controls

Functional Activity Program Manager (FAPM)

Description: The FAPM is responsible for executing the functional management process. They take the lead in defining the functional scope of the migration system domain. Their responsibilities include:

- Developing functional architectures and strategic plans, and establishing process, data, and information system baselines
- Leading OSD and DoD Component participants in process improvement
- Evaluating alternatives presented in Functional Economic Analyses (FEAs) and submitting these to PSAs
- Preparing data and technical management plans and presenting these to PSAs
- Executing process and data changes and providing functional management oversight on system changes

Technical Integration Manager (TIM)

Description: The Technical Integration Manager (TIM) provides technical support to OSD Principal Staff Assistants (PSAs) and Functional Activity Program Managers (FAPMs).

References

Formal Document: Appendix C, Part 1, Functional Process Improvement, DoD 8020.1-M (Draft) Change 1.

Memo: The roles and responsibilities of the Technical Integration Manager (TIM) are formally presented in Appendix A, Part 3, of DoD 8020.1-M (Draft) Change 1.

Functional Data Administrator (FDAd)

Description: The Functional Data Administrator (FDAd) for a functional area is responsible for the integration and management of the data models and standard data elements across functional activities within the functional area.

References

Formal Document: Appendix A, Part 3, Functional Process Improvement, DoD 8020.1-M (Draft) Change 1

Memo: The roles and responsibilities of the Functional Data Administrator (FDAd) are formally presented in Appendix A, Part 3, of DoD 8020.1-M (Draft) Change 1.

Principal Staff Assistants (PSAs)

Description: OSD PSAs are responsible for implementing the DoD information management program within their functional areas and activities. Their focus is from a functional perspective. PSAs develop functional objectives for each of their functional areas and activities. In addition, they provide guidance and analytical support for improving processes, data, and supporting information systems to satisfy those objectives. PSAs are also responsible for implementing changes to streamline operations and improve cost-effectiveness. PSAs designate FAPMs to assist in this implementation.

Directorate for Enterprise Integration (DISA/D7)

Description: The Directorate for Enterprise Integration is the primary supporting agency for the EI Corporate Management Council. Working closely with OASD(C3I), the EI office publishes and maintains EI strategy and implementation plans for the DoD. As decisions are made and approved, the EI office records the decisions and supporting implementation strategies. The EI office documents the EI process and maintains information for management review and prioritization on resourcing, data strategies, migration systems, proofs-of-concept, cross-functional programs, and technical infrastructure implementation within the DII.

Outputs

Tactical Integration Plan

Description: The Tactical Integration Plan (TIP) identifies the high-level tasks to be performed in order to implement the approved migration strategy.

Mechanisms

Tactical Implementation Plan (TIP) Tool

Description: The Tactical Implementation Plan (TIP) tool is used to create a TIP for a set of legacy applications. The TIP tool requires information from the Migration Assessment Tool (MAT). The TIP tool uses a template from Microsoft Word for Windows 6.0 to create the TIP document. Using Microsoft Word for Windows (or another word processing package), the document may be edited further to add specific application information not provided by the DIST.

Migration Strategy Development Team

Description: A Migration Strategy Development Team is responsible for the formulation of a suitable migration system strategy for the functional activity.

A332161 DEVELOP APPLICATION INTEGRATION TASKS

Description

The purpose of this activity is to identify the major tasks associated with application integration. These tasks focus on the designated migration application (or applications) and are aimed, primarily, at ensuring that the designated migration system will support the legacy application community.

Secondarily, these application integration tasks are aimed at capitalizing on opportunities to migrate the designated migration system towards TAFIM compliance.

The following issues with respect to application integration should be addressed in the TIP:

- The functional capabilities of the selected migration system are well-documented
- The functional requirements of involved legacy system users are accounted for in the transition to the migration or target system; this is particularly important for all mission critical functions provided by the legacy systems being replaced much more accounted for in some respect; it must be remembered, however, that legacy system users may experience a net decrease in automated systems

functionality during the migration to a standard system (the migration system) for the functional activity.

- All required changes, modifications, and enhancements are in place so that operations will not be disrupted during changeover

References

Inputs

General Implementation Plan for the Selected Migration System

Description: This is the initial, broad-brush implementation plan developed during task A332152 for the purpose of conducting an economic comparison of the migration system alternatives.

Controls

Functional Activity Program Manager (FAPM)

Description: The FAPM is responsible for executing the functional management process. They take the lead in defining the functional scope of the migration system domain. Their responsibilities include:

- Developing functional architectures and strategic plans, and establishing process, data, and information system baselines
- Leading OSD and DoD Component participants in process improvement
- Evaluating alternatives presented in Functional Economic Analyses (FEAs) and submitting these to PSAs
- Preparing data and technical management plans and presenting these to PSAs
- Executing process and data changes and providing functional management oversight on system changes

Technical Integration Manager (TIM)

Description: The Technical Integration Manager (TIM) provides technical support to OSD Principal Staff Assistants (PSAs) and Functional Activity Program Managers (FAPMs).

References

Formal Document: Appendix C, Part 1, Functional Process Improvement, DoD 8020.1-M (Draft) Change 1.

Memo: The roles and responsibilities of the Technical Integration Manager (TIM) are formally presented in Appendix A, Part 3, of DoD 8020.1-M (Draft) Change 1.

Outputs

TIP Schedule 1—Application Integration

Description: Schedule 1 (Application Integration) of the TIP identifies major application integration tasks.

Mechanisms

Tactical Implementation Plan (TIP) Tool

Description: The Tactical Implementation Plan (TIP) tool is used to create a TIP for a set of legacy applications. The TIP tool requires information from the Migration Assessment Tool (MAT). The TIP tool uses a template from Microsoft Word for Windows 6.0 to create the TIP document. Using Microsoft Word for Windows (or another word processing package), the document may be edited further to add specific application information not provided by the DIST.

Migration Strategy Development Team

Description: The migration strategy development team is a distinct information management integration team that will focus on the development of an overall migration strategy for a functional activity.

A332162 DEVELOP DATA INTEGRATION TASKS

Description

The purpose of this activity is to identify the major tasks associated with data integration.

The following issues with respect to data integration should be addressed in the TIP:

- All requirements for data integration are accounted for
- Utilities are in place to effect the conversion of legacy system data to the migration or target system
- Arrangements are in place to scrub or reformat legacy data as necessary to support the requirements of the new system
- Criteria are in place to validate or audit converted data, and a program is in place to reconstruct invalid data

References

Inputs

Cross-Functional Analysis Results for Selected Migration Alternative

Description: The results of the cross-functional analysis [see A33213] conducted for the selection migration system should be used to define data integration requirements for the migration system implementation plan.

Controls

Technical Integration Manager (TIM)

Description: The Technical Integration Manager (TIM) provides technical support to OSD Principal Staff Assistants (PSAs) and Functional Activity Program Managers (FAPMs).

References

Formal Document: Appendix C, Part 1, Functional Process Improvement, DoD 8020.1-M (Draft) Change 1.

Memo: The roles and responsibilities of the Technical Integration Manager (TIM) are formally presented in Appendix A, Part 3, of DoD 8020.1-M (Draft) Change 1.

Functional Data Administrator (FDAd)

Description: The Functional Data Administrator (FDAd) for a functional area is responsible for the integration and management of the data models and standard data elements across functional activities within the functional area.

References

Formal Document: Appendix A, Part 3, Functional Process Improvement, DoD 8020.1-M (Draft) Change 1

Memo: The roles and responsibilities of the Functional Data Administrator (FDAd) are formally presented in Appendix A, Part 3, of DoD 8020.1-M (Draft) Change 1.

Outputs

TIP Schedule 2—Data Integration

Description: Schedule 2 (Data Integration) of the TIP identifies and briefly describes the major data integration tasks of the migration effort.

Mechanisms

Tactical Implementation Plan (TIP) Tool

Description: The Tactical Implementation Plan (TIP) tool is used to create a TIP for a set of legacy applications. The TIP tool requires information from the Migration Assessment Tool (MAT). The TIP tool uses a template from Microsoft Word for Windows 6.0 to create the TIP document. Using Microsoft Word for Windows (or another word processing package), the document may be edited further to add specific application information not provided by the DIST.

Migration Strategy Development Team

Description: The migration strategy development team is a distinct information management integration team that will focus on the development of an overall migration strategy for a functional activity.

A332163 DEVELOP IT INFRASTRUCTURE INTEGRATION TASKS

Description

The purpose of this activity is to identify and describe the major tasks required to establish the Information Technology infrastructure necessary to support the designated migration application and the legacy application workload. Three major dimensions of the IT infrastructure are addressed: hardware, systems and support software, and data communications.

The following issues with respect to IT infrastructure integration should be addressed in the TIP:

- Arrangements are in place to acquire or relocate all needed hardware components, including communications facilities
- Capacity calculations have been made to ensure that hardware facilities can support expected storage and processing loads
- Arrangements are in place to acquire, upgrade, or create needed systems software components including utilities
- All hardware and systems software support and maintenance requirements have been documented

References

Inputs

Section 2 of the FEA/IDP

Description: Section 2 of the FEA/IDP—in particular—the baseline technical infrastructure subsection—contains the information regarding the legacy and migration system infrastructures that should be used in determining the infrastructure integration requirements of the TIP.

Controls

Technical Integration Manager (TIM)

Description: The Technical Integration Manager (TIM) provides technical support to OSD Principal Staff Assistants (PSAs) and Functional Activity Program Managers (FAPMs).

References

Formal Document: Appendix C, Part 1, Functional Process Improvement, DoD 8020.1-M (Draft) Change 1.

Memo: The roles and responsibilities of the Technical Integration Manager (TIM) are formally presented in Appendix A, Part 3, of DoD 8020.1-M (Draft) Change 1.

Outputs

TIP Schedule 3—Infrastructure Integration

Description: Schedule 3 (Infrastructure Integration) of the TIP identifies and describes the major tasks required to establish the Information Technology infrastructure necessary to support the designated migration application and the legacy application workload. Three major dimensions of the IT infrastructure are addressed: hardware, systems and support software, and data communications.

Mechanisms

Tactical Implementation Plan (TIP) Tool

Description: The Tactical Implementation Plan (TIP) tool is used to create a TIP for a set of legacy applications. The TIP tool requires information from the Migration Assessment Tool (MAT). The TIP tool uses a template from Microsoft Word for Windows 6.0 to create the TIP document. Using Microsoft Word for Windows (or another word processing package), the

document may be edited further to add specific application information not provided by the DIST.

Migration Strategy Development Team

Description: The migration strategy development team is a distinct information management integration team that will focus on the development of an overall migration strategy for a functional activity.

A332164 DEVELOP SECURITY REQUIREMENTS

Description

The purpose of this activity is to identify the major security requirements of the integration effort. Security issues are cross-cutting, that is, they arise in each major area of the integration effort: application, data, and infrastructure. This section consolidates all major security requirements into a integrated set of security-specific tasks.

The following issues with respect to security, privacy, and integrity should be addressed in the TIP:

- Specifications are in place to control access to data and applications in compliance with all applicable security and privacy laws, regulations, and directives
- Specifications are in place to ensure systems, data, and application integrity with respect to backup, recovery, and restore operations- especially in distributed applications and data environments
- Arrangements have been put in place for secure storage and backup processing sites

References

Inputs

Statement of Impacts, Issues, and Concerns

Description: Possible impacts of the migration strategy with respect to organizational, personnel, operational, and financial aspects of the functional activity are documented at the conclusion of this task. Personnel issues include the possibility of changes in the personnel mix of the organization, including whether people will need to be retrained and/or reassigned. Operational impacts arise from a significantly changed way of doing business caused by the implementation of the designated migration system. Financial impacts stem from the significant alteration of the baseline given the implementation of the migration system. Although significantly lower operating costs can be expected from a AIS consolidation effort in the near-

and long-term, such an initiative usually demands a considerable front-end investment; resources for the necessary implementation effort may not be readily available. Any other issues or concerns that arose in the alternatives analysis and implementation planning process should also be documented here.

Controls

Technical Integration Manager (TIM)

Description: The Technical Integration Manager (TIM) provides technical support to OSD Principal Staff Assistants (PSAs) and Functional Activity Program Managers (FAPMs).

References

Formal Document: Appendix C, Part 1, Functional Process Improvement, DoD 8020.1-M (Draft) Change 1.

Memo: The roles and responsibilities of the Technical Integration Manager (TIM) are formally presented in Appendix A, Part 3, of DoD 8020.1-M (Draft) Change 1.

Outputs

TIP Schedule 4—Security Integration

Description: Schedule 4 (Security Integration) of the TIP addresses the major security requirements of this integration effort. Security issues are cross-cutting, that is, they arise in each major area of the integration effort: application, data, and infrastructure. This section consolidates all major security requirements into a integrated set of security-specific tasks.

Mechanisms

Tactical Implementation Plan (TIP) Tool

Description: The Tactical Implementation Plan (TIP) tool is used to create a TIP for a set of legacy applications. The TIP tool requires information from the Migration Assessment Tool (MAT). The TIP tool uses a template from Microsoft Word for Windows 6.0 to create the TIP document. Using Microsoft Word for Windows (or another word processing package), the document may be edited further to add specific application information not provided by the DIST.

Migration Strategy Development Team

Description: The migration strategy development team is a distinct information management integration team that will focus on the development of an overall migration strategy for a functional activity.

A332165 DEVELOP ACQUISITION REQUIREMENTS

Description

The purpose of this activity is to consolidate the major acquisition requirements identified during the migration strategy development process. Acquisition, like security, is a cross-cutting issue. Acquisition requirements originate from many different places in the overall migration planning effort. These consolidated requirements are documented in Schedule 5 of the TIP.

The following issues with respect to acquisition and procurement should be addressed in the TIP:

- The status and schedule related to hardware, software, and services procurement are consistent with planned installation and deployment requirements and schedules
- A backup plan should be established to secure needed resources on a temporary basis until procured items have been delivered

References

Inputs

Estimated Cost Analysis of Selected Migration Alternatives

Description: The economic analysis of migration alternatives typically contains three subsections: baseline information technology costs (i.e., the cost of continuing business as usual); a cost comparison of migration alternatives, comparing the annual operations and maintenance cost of each alternative with the annual cost of operations and maintenance of the baseline environment; and annual cost reductions achievable for each alternative by fiscal year.

Controls

Technical Integration Manager (TIM)

Description: The Technical Integration Manager (TIM) provides technical support to OSD Principal Staff Assistants (PSAs) and Functional Activity Program Managers (FAPMs).

References

Formal Document: Appendix C, Part 1, Functional Process Improvement, DoD 8020.1-M (Draft) Change 1.

Memo: The roles and responsibilities of the Technical Integration Manager (TIM) are formally presented in Appendix A, Part 3, of DoD 8020.1-M (Draft) Change 1.

Outputs

TIP Schedule 5—Acquisition

Description: Schedule 5 consolidate the major acquisition tasks identified during the migration planning process.

Mechanisms

Tactical Implementation Plan (TIP) Tool

Description: The Tactical Implementation Plan (TIP) tool is used to create a TIP for a set of legacy applications. The TIP tool requires information from the Migration Assessment Tool (MAT). The TIP tool uses a template from Microsoft Word for Windows 6.0 to create the TIP document. Using Microsoft Word for Windows (or another word processing package), the document may be edited further to add specific application information not provided by the DIST.

Migration Strategy Development Team

Description: The migration strategy development team is a distinct information management integration team that will focus on the development of an overall migration strategy for a functional activity.

A332166 DEVELOP TRAINING REQUIREMENTS

Description

The purpose of this activity is to identify the major training requirements of the integration effort.

The following issues with respect to training should be addressed in the TIP:

- A training program to support the new information system should be developed in time for use by personnel participating in or conducting functional tests of the migration system
- The training program should include a significant hands-on component

- Student feedback from training sessions conducted during the implementation process can often be helpful to the implementation and test team; moreover, student feedback is invaluable to the developers of the training program

References

Inputs

Selected Migration Alternative Training Requirements

Description: The training requirements of the selected migration system are one of the principal inputs to this task. By comparing migration system training requirements with those of the legacy systems to be replaced, the technical integration manager can identify the major training tasks of the migration effort.

Controls

Technical Integration Manager (TIM)

Description: The Technical Integration Manager (TIM) provides technical support to OSD Principal Staff Assistants (PSAs) and Functional Activity Program Managers (FAPMs).

References

Formal Document: Appendix C, Part 1, Functional Process Improvement, DoD 8020.1-M (Draft) Change 1.

Memo: The roles and responsibilities of the Technical Integration Manager (TIM) are formally presented in Appendix A, Part 3, of DoD 8020.1-M (Draft) Change 1.

Outputs

TIP Schedule 6—Training

Description: Schedule 6 (Training) of the TIP identifies the major training tasks of the integration effort.

Mechanisms

Tactical Implementation Plan (TIP) Tool

Description: The Tactical Implementation Plan (TIP) tool is used to create a TIP for a set of legacy applications. The TIP tool requires information from the Migration Assessment Tool (MAT). The TIP tool uses a template from Microsoft Word for Windows 6.0 to create the TIP document. Using Microsoft Word for Windows (or another word processing package), the

document may be edited further to add specific application information not provided by the DIST.

Migration Strategy Development Team

Description: The migration strategy development team is a distinct information management integration team that will focus on the development of an overall migration strategy for a functional activity.

A3322 IMPLEMENT MIGRATION STRATEGY

Description

This activity constitutes the second (and concluding) major phase of the IS integration and standardization process within the encompassing information management integration process. It's the task that brings the analysis and plans of A3321 to realization. It consists of three basic subtasks:

- Install and test migration system at initial site
- Deploy migration system at all other sites of the Functional Activity
- De-commission obsolete legacy systems

The first subtask—Install and Test Migration System—is the first major task of the TIP. The task is designed to demonstrate the technical feasibility of replacing a legacy system by the selected migration application.

References

Formal Document: <http://www.dtic.mil:80/c3i/bprcd/3003s9.html>

Memo: Section 9 of the DoD Management Framework for Process Improvement contains useful guidance for the execution phase of an entire BPR project. The subtask descriptions comprised by this activity [A3322] are adapted from this material.

Inputs

Legacy System Environment

Description: A legacy system environment is one characterized by a large number of "stovepipe" information systems that do not share common data elements or interoperate.

Controls

Tactical Integration Plan (TIP)

Description: The Tactical Integration Plan (TIP) is the implementation plan for an approved migration strategy.

Outputs

Standardized and Integrated Information Systems Environment

Description: Standardized and integrated information systems are those systems that automate integrated information management processes; they are non-redundant and employ standardized data elements within a common information infrastructure.

Mechanisms

Migration System Implementation Team

Description: The migration system implementation team is responsible for the planning, organizing, execution, and control of the Tactical Integration Plan. The migration system implementation team is often comprised of members of the team that developed and migration systems strategy for the functional activity, supplemented, of course, by necessary technical personnel.

References

Guidelines: <http://www.dtic.mil:80/c3i/bprcd/3003ae.html>

Memo: Appendix E ("Process Improvement Team Qualities") of the "Framework for Managing Process Improvement" outlines the roles, responsibilities, and qualities of effective process improvement teams.

A33221 INSTALL AND TEST MIGRATION SYSTEM

Description

The selected migration system is installed and replaces a legacy system at one site of the Functional Activity.

References

Inputs

Legacy System Environment

Description: The various legacy system environments within the Functional Activity are transformed by this phase of the enterprise integration process.

Controls

Tactical Integration Plan (TIP)

Description: The Tactical Integration Plan (TIP) is the implementation plan for an approved migration strategy.

Outputs

Standardized and Integrated Information Systems Environment

Description: Standardized and integrated information systems are those systems that automate integrated information management processes; they are non-redundant and employ standardized data elements within a common information infrastructure.

Mechanisms

Migration System Implementation Team

Description: The migration system implementation team is responsible for the planning, organizing, execution, and control of the Tactical Integration Plan. The migration system implementation team is often comprised of members of the team that developed and migration systems strategy for the functional activity, supplemented, of course, by necessary technical personnel.

References

Guidelines: <http://www.dtic.mil:80/c3i/bprcd/3003ae.html>

Memo: Appendix E ("Process Improvement Team Qualities") of the "Framework for Managing Process Improvement" outlines the roles, responsibilities, and qualities of effective process improvement teams.

A332211 INITIAL SITE SELECTION AND PREPARATION

Description

The initial site at which the migration system is to be installed must be selected and prepared with care to help ensure success of the whole migration strategy. Some of the more important criteria for site selection include the following:

- Site leadership and management are committed to project success
- Site personnel exhibit high morale and are receptive to change
- The site is conveniently located relative to technical support
- The site is representative of all planned deployment (migration) sites with respect to information system operations
- The physical facility is adequate for the new system and can easily accommodate the installation and test team
- The site offers or can accommodate administrative support personnel and has adequate communications facilities for voice, data, package delivery, and transportation
- Site operations can tolerate some disruption to normal operations during the installation and test period
- Customer acceptance of the new information system at this site will be recognized and supported by the majority of planned deployment sites.

The installation team must ensure sufficient lead time for procuring all systems components include computer and communications hardware, wiring and cables, and systems software. In addition, the site must be certified with respect to power, air conditioning, and ventilation according to hardware vendor specifications.

References

Inputs

Legacy System Environment

Description: A legacy system environment is one characterized by a large number of “stovepipe” information systems that do not share common data elements or interoperate.

Controls

TIP Schedule 5—Acquisition

Description: Schedule 5 consolidate the major acquisition tasks identified during the migration planning process.

Outputs

Initial Legacy Site Prepared for Migration System Installation

Description: The outcome of this task is a legacy system site within the Functional Activity prepared for implementation of the selected migration system.

Mechanisms

Migration System Implementation Team

Description: The migration system implementation team is responsible for the planning, organizing, execution, and control of the Tactical Integration Plan. The migration system implementation team is often comprised of members of the team that developed and migration systems strategy for the functional activity, supplemented, of course, by necessary technical personnel.

References

Guidelines: <http://www.dtic.mil:80/c3i/bprcd/3003ae.html>

Memo: Appendix E ("Process Improvement Team Qualities") of the "Framework for Managing Process Improvement" outlines the roles, responsibilities, and qualities of effective process improvement teams.

A332212 INSTALL MIGRATION SYSTEM

Description

The first task after site selection and preparation is to install and test all hardware, software, and communications components and facilities of the migration system. This phase of testing should be completed by the installation team and should not disrupt normal business operations at the site. It is best if site personnel are not involved in the installation and checkout process. This is because the typical problems encountered in the initial installation process may undermine the confidence of site personnel in the migration system.

This task is complete when all features and functions of the migration system have been successfully demonstrated in the legacy system environment the migration system is intended to replace. This includes the following:

- All start-up, sign-on, password, and security features are functional
- All menu selections are active and branch to the proper systems component
- All screens can be brought up and add, change, and delete functions work
- All reports can be generated and major report options work

- All transaction types and codes for this site are accepted by the migration system
- All codes and tables used in the migration system are populated and table maintenance procedures work
- All backup and recovery functions work
- All personal computers, workstations, and communications nodes can access the migration system as required
- Linkages and interfaces to other application software components used at the site, including off-the-shelf software packages, work
- The migration system works with all specified devices including brands and models of input/output devices, storage devices, communications devices, network devices (local and wide area), workstation devices, and linkages to other computer platforms.

It is normal to encounter serious technical problems during the initial installation and systems test process, particularly if the migration system is being ported to a new hardware platform and a new communications architecture. For this reason, adequate time must be allotted for systems testing. If things go better than expected, the time can be profitably used to do more thorough testing.

What is not tested in this task is the logic of the application functions and the validity of the results obtained. For instance, this task will test that a particular report can be printed out, but it will not test whether the data displayed in the report is valid or whether required data is missing. The logic and accuracy of the system will be tested later by site personnel who are most knowledgeable of the business processes and data used at the site.

Also, the installation team will not concern themselves with performance tuning during this phase of the project unless the performance is seriously below specification. Performance tuning is normally accomplished following operational and parallel testing and just prior to running final customer acceptance tests. The reason for this is that it does not make sense to tune the system until all errors uncovered by operational testing are corrected.

References

Inputs

Initial Legacy Site Prepared for Migration System Installation

Description: The outcome of this task is a legacy system site within the Functional Activity prepared for implementation of the selected migration system.

Controls

TIP Schedule 1—Application Integration

Description: Schedule 1 (Application Integration) of the TIP identifies major application integration tasks.

TIP Schedule 2—Data Integration

Description: Schedule 2 (Data Integration) of the TIP identifies and briefly describes the major data integration tasks of the migration effort.

TIP Schedule 3—Infrastructure Integration

Description: Schedule 3 (Infrastructure Integration) of the TIP identifies and describes the major tasks required to establish the Information Technology infrastructure necessary to support the designated migration application and the legacy application workload.

TIP Schedule 4—Security Integration

Description: Schedule 4 (Security Integration) of the TIP addresses the major security requirements of this integration effort. Security issues are cross-cutting, that is, they arise in each major area of the integration effort: application, data, and infrastructure.

Outputs

Installed Migration System at Initial Implementation Site

Description: The selected migration system is installed at the initial legacy site; it is not yet operational.

Standardized and Integrated Information Systems Environment

Description: Standardized and integrated information systems are those systems that automate integrated information management processes; they are non-redundant and employ standardized data elements within a common information infrastructure.

Mechanisms

Migration System Implementation Team

Description: The migration system implementation team is responsible for the planning, organizing, execution, and control of the Tactical Integration Plan. The migration system implementation team is often comprised of members of the team that developed and migration systems strategy for the functional activity, supplemented, of course, by necessary technical personnel.

References

Guidelines: <http://www.dtic.mil:80/c3i/bprcd/3003ae.html>

Memo: Appendix E ("Process Improvement Team Qualities") of the "Framework for Managing Process Improvement" outlines the roles, responsibilities, and qualities of effective process improvement teams.

A332213 IMPLEMENT TRAINING PROGRAM

Description

During the later stages of the previous task, the training program developed to support conversion to the migration system should be delivered to site personnel who will participate in, or conduct the functional tests of the migration system. To the extent that it is possible, training should include hands-on experience on the migration system. This can be provided either by providing access to the training modules of the migration system at its current operational site(s) or by access to functional components of the migration system as they become available. Student feedback during training can often be helpful to the installation and test team.

The more discrepancies discovered and fixed during installation and checkout, the less there will be during the operational testing period. Moreover, site-specific functional requirements that may have been overlooked in the planning process can be detected and addressed early in the migration process.

It is possible that the training systems developed (or being developed) for general deployment will not yet be ready at this time. This will probably be the case if some form of media training is involved. When this is the case, it may be necessary for members of the installation and test team (rather than training staff or contractors) to conduct the initial training. If this will be the case, time must be allotted in the installation schedule for this to take place.

The project team should be aware that the training system being used at this time may also be undergoing final tests. If allowance is made to incorporate student feedback into refining training materials, the training program deployed with the accepted system will be that much better. Also, allowance should be made to test systems and operational documentation so that any discrepancies in these materials can be corrected prior to migration system deployment.

References

Inputs

Controls

TIP Schedule 6—Training

Description: Schedule 6 (Training) of the TIP identifies the major training tasks of the integration effort.

Outputs

Implemented Migration System Training Program

Description: This is training program designed to meet training requirements of legacy system users as they move into the new migration systems environment.

Mechanisms

Migration System Implementation Team

Description: The migration system implementation team is responsible for the planning, organizing, execution, and control of the Tactical Integration Plan. The migration system implementation team is often comprised of members of the team that developed and migration systems strategy for the functional activity, supplemented, of course, by necessary technical personnel.

References

Guidelines: <http://www.dtic.mil:80/c3i/bprcd/3003ae.html>

Memo: Appendix E ("Process Improvement Team Qualities") of the "Framework for Managing Process Improvement" outlines the roles, responsibilities, and qualities of effective process improvement teams.

A332214 CONDUCT PARALLEL TEST PROGRAM & SECURE CUSTOMER ACCEPTANCE

Description

This task is one of the most critical in the entire migration process. All of the work done previous to this task was done in preparation for operational and parallel testing. This is the first opportunity for all aspects of the migration strategy to be tested.

The success criteria for this task are the following:

- Successful systems level testing results by the installation team resulting in a migration system ready for operational testing
- A sound training program that prepares legacy site personnel for working with the new process and using the new migration system
- A test plan with accompanying test bed that exercises all features and functions of the migration system in the new environment
- A program of regression testing following all changes or fixes to any significant element in the process, information system or change management program.

The test plan must be carefully constructed so that it guides testing in a logical order with respect to the sequence of process operations and the structure of the information system. An information system is generally tested in this order:

- Data base records and tables
- Code and function tables
- Global functions such as input/output, screen generation, and data base access
- User sign-on, access and menu systems
- Mainline processing functions and routines including input edit, format, and data validation routines
- Secondary or ancillary functions and routines including exception handling
- Query logic and report generation routines and outputs
- Linkages to other application or packaged software programs
- Restore and restart operations with respect to operational data reconstruction.

All test sequences must be conducted following a refresh of the test data base so that consistency of operational testing can be maintained. All errors and discrepancies must be recorded, diagnosed, coded, corrected, and unit tested. Changes to the migration system must be made on a scheduled batch basis followed by implementation of a regression testing program to ensure that new errors are not introduced in parts of the system already tested. Version control is an absolute must during this process.

When the entire migration system has been tested and all discrepancies removed, any organizational changes, staff changes and assignments, work flow, or internal communications that need to be made should be put in place.

At this point parallel testing can commence. Parallel testing refers to the technique of running a new system side-by-side with the existing system that it will replace. The purpose is to ensure that the results obtained from the new migration system are consistent with the results obtained from the legacy system for relevant functions.

The secret to controlling the operational and parallel test process is to ensure that the test plan and program contains checklists that reference every area of process changes and enhancements, organizational changes, and information systems functions and features. Checklists are Formal Documents that are time-stamped, coded by system version number, and signed by the responsible person. Errors noted on checklists should also be linked to program modification documents so that an audit trail exists relating testing, error detection, error correction, and regression testing.

When the test program is complete, all errors and discrepancies have been properly handled, and all regression testing activities have been completed, the installation team can turn their attention to performance issues of the migration system, if necessary. If the migration system has been replicated on the same hardware/communications platform on which it is normally operated, performance issues may be confined to matters of capacity and can usually be dealt with by increasing the Memory, disk , communications bandwidth, etc. configuration. It is probably not necessary to examine database table structures or other software aspects of the system to address performance questions. In any event, system changes other than those absolutely necessary to meet functional requirements (including performance requirements) at the new site should be avoided, both to avoid the introduction of other more serious problems and to avoid incurring exactly the kind of additional costs the migration effort to a standard system was intended to avoid.

Customer acceptance trials are only performed once the installation team has satisfied itself that the migration system is ready for final inspection and acceptance. The overall goal of this task is to complete the customer acceptance trials with little or no new errors or discrepancies reported.

But because customer acceptance trials are a formal process, acceptance must be based on process and system specifications and criteria, not on the implementation of newly requested features and enhancements. The reason for this is that the entire test bed

and test program was constructed based on approved process and system specifications such as those contained in models, plans, designs, and the FEA/IDP that authorized the migration strategy. If new changes or enhancements are introduced into the system at this stage of the project, there is no assurance that such changes can be adequately tested. In any case, such action would invalidate the entire system, operational, and parallel testing program.

References

Inputs

Controls

Tactical Integration Plan (TIP)

Description: The Tactical Integration Plan (TIP) is the implementation plan for an approved migration strategy.

Outputs

Formal Customer Acceptance of Migration System

Description: The legacy system site functional community formally accepts the implementation of the migration system.

Mechanisms

Migration System Implementation Team

Description: The migration system implementation team is responsible for the planning, organizing, execution, and control of the Tactical Integration Plan. The migration system implementation team is often comprised of members of the team that developed and migration systems strategy for the functional activity, supplemented, of course, by necessary technical personnel.

References

Guidelines: <http://www.dtic.mil:80/c3i/bprcd/3003ae.html>

Memo: Appendix E ("Process Improvement Team Qualities") of the "Framework for Managing Process Improvement" outlines the roles, responsibilities, and qualities of effective process improvement teams.

A332215 IMPLEMENT TRANSITION (CUT-OVER) PLAN

Description

Following formal customer acceptance, the transition plan previously developed is implemented. The transition plan governs all activities that allow the organization to change over to the migration system. It is during this task that and necessary organizational changes go into affect, and process stakeholders (especially suppliers and customers) are formally involved with the new system.

If the previous tasks in this step have been faithfully executed, the transition should go reasonably well. However, the installation team and site personnel should expect some problems during this task. Some of these problems can be easily handled, but some may require rethinking parts of the new implementation. On rare occasions (providing the test program was rigorously carried out), the transition program may have to be halted until serious problems and issues are resolved.

In general, the project should be considered to be in the transition phase until one complete business cycle has been completed. This will most often equate to one month, with quarterly and annual functions performed at least once on a simulated basis. During the transition period, it may be necessary to force some exceptional conditions that rarely occur just to ensure that everything is in place to handle these exceptions. One example would be to stage a power failure to ensure that recovery procedures are effective.

References

Inputs

Implemented Migration System Training Program

Description: This is training program designed to meet training requirements of legacy system users as they move into the new migration systems environment.

Installed Migration System at Initial Implementation Site

Description: The selected migration system is installed at the initial legacy site; it is not yet operational.

Controls

Tactical Integration Plan (TIP)

Description: The Tactical Integration Plan (TIP) is the implementation plan for an approved migration strategy.

Formal Customer Acceptance of Migration System

Description: The legacy system site functional community formally accepts the implementation of the migration system.

Outputs

Operational Migration System Environment

Description: Successful completion of this task results in at least one legacy system site replaced with a fully operational instance of the selection migration system.

Mechanisms

Migration System Implementation Team

Description: The migration system implementation team is responsible for the planning, organizing, execution, and control of the Tactical Integration Plan. The migration system implementation team is often comprised of members of the team that developed and migration systems strategy for the functional activity, supplemented, of course, by necessary technical personnel.

References

Guidelines: <http://www.dtic.mil:80/c3i/bprcd/3003ae.html>

Memo: Appendix E ("Process Improvement Team Qualities") of the "Framework for Managing Process Improvement" outlines the roles, responsibilities, and qualities of effective process improvement teams.

A33222 DEPLOY REMAINING SITES

Description

Following a successful transition period at the initial migration site, all remaining sites can be deployed on a scheduled basis by following an abbreviated installation and test process. The degree of site-specific testing and acceptance will depend for the most part on how similar each subsequent deployment site is to the initial site. The degree of similarity includes leadership, management, and employee factors; organizational structure, policy, and procedure factors; product, service, and business process factors;

stakeholder factors (especially suppliers and customers); and information systems utilization factors. The deployment team should also be aware of physical site characteristics that may have some bearing on successful and timely deployment.

In general, the information systems component will be the most stable and consistent over the deployed sites. The business process itself may require some adjustments or changes from site to site. But the organizational change management program may have to be implemented quite differently in each site. The only way to know these site-specific characteristics is to conduct pre-deployment visits, meetings, and assessments during the project execution planning step. Another benefit of this approach is that a preferred sequence of deployment will become evident.

One of the most important considerations of migration system deployment as contrasted with initial site installation are all those decisions and actions that have lead time associated with them. Such items include site preparation, equipment procurement, shipment, and installation, organizational changes, training delivery, technical support, and transition planning. It is very important that the overall project management plan governing installation and deployment have well-developed lead time parameters built in to the PERT chart.

Timing will be affected by whether there will be one deployment team that moves from site to site, or multiple deployment teams. An additional consideration is how much of the deployment work can be performed by site personnel versus that which is to be performed by the deployment team.

References

Inputs

Remaining Legacy System Sites

Description: All remaining legacy system sites of the Functional Activity that are to be replaced by the selected migration system can be considered inputs to this task.

Controls

Tactical Integration Plan (TIP)

Description: The Tactical Integration Plan (TIP) is the implementation plan for an approved migration strategy.

Outputs

Operational Migration Systems at all Functional Activity Sites

Description: This activity results in operational migrations systems at all Functional Activity sites.

New Migration System Support Environments

Description: A new system support environment is established to provide ongoing support to the operational migration system. This support environment consists of maintenance contracts, operations, security, etc.

Mechanisms

Migration System Implementation Team

Description: The migration system implementation team is responsible for the planning, organizing, execution, and control of the Tactical Integration Plan. The migration system implementation team is often comprised of members of the team that developed and migration systems strategy for the functional activity, supplemented, of course, by necessary technical personnel.

References

Guidelines: <http://www.dtic.mil:80/c3i/bprcd/3003ae.html>

Memo: Appendix E ("Process Improvement Team Qualities") of the "Framework for Managing Process Improvement" outlines the roles, responsibilities, and qualities of effective process improvement teams.

A33223 DE-COMMISSION OBSOLETE LEGACY SYSTEMS

Description

Following a successful transition period, the next task is to de-commission or scrap existing legacy system components. While hardware components can usually be salvaged or re-deployed, most other elements associated with the business process and underlying information system are simply scrapped. The following activities are performed during this task:

- Accounting, inventory, and maintenance records are appropriately updated
- Supplier agreements and contracts including leases, maintenance agreements, supplies contracts, and services contracts are properly handled
- Licensed software packages are properly disposed of
- Obsolete documentation (policies, procedures, handbooks, etc.), special forms, manuals, and training courses are scrapped

- Computer and communications equipment is scrapped, salvaged, or redeployed
- Obsolete data base and file records are archived or erased as appropriate.

References

Inputs

Operational Legacy Systems

Description: Operational legacy system are any operation information systems that are being replaced in whole or in part by the selected migration system.

Controls

Tactical Integration Plan (TIP)

Description: The Tactical Integration Plan (TIP) is the implementation plan for an approved migration strategy.

Outputs

De-Commissioned Legacy Systems

Description: All legacy systems intended to be replaced by the selected migration system are de-commissioned.

Mechanisms

Migration System Implementation Team

Description: The migration system implementation team is responsible for the planning, organizing, execution, and control of the Tactical Integration Plan. The migration system implementation team is often comprised of members of the team that developed and migration systems strategy for the functional activity, supplemented, of course, by necessary technical personnel.

References

Guidelines: <http://www.dtic.mil:80/c3i/bprcd/3003ae.html>

Memo: Appendix E ("Process Improvement Team Qualities") of the "Framework for Managing Process Improvement" outlines the roles, responsibilities, and qualities of effective process improvement teams.

A333 DEVELOP AND IMPLEMENT STANDARD IS ARCHITECTURE

Description

The purpose of this activity is to develop and implement a common, standards-based information systems architecture (or infrastructure) for the Department of Defense. This standard IS architecture is known as the Defense Information Infrastructure (DII) which is defined as a seamless web of communications networks, computers, software, databases, applications, data, and other capabilities that meets the information processing and delivery needs of DoD users.

References

Formal Document: <http://www.disa.mil/dii/diixxe/execsum1.html>

Memo: The "Defense Information Infrastructure Master Plan" establishes the common DoD vision of the DII and identifies its current and future elements. The document also serves to define the roles, responsibilities, and relationships of all participants in the development of the DII.

Inputs

Non-Standard IS Architecture

Description: The current DoD information system infrastructure, consisting largely of stovepiped, single-purpose, and inflexible systems that are costly to maintain, arose because of the lack of a single architectural framework for information systems development and operation.

Controls

DISA (Defense Information Systems Agency)

Description: The Defense Information Systems Agency has overall responsible for information systems within DoD and figures prominently in the process of information management integration.

Technical Integration Manager (TIM)

Description: The Technical Integration Manager (TIM) provides technical support to OSD Principal Staff Assistants (PSAs) and Functional Activity Program Managers (FAPMs).

References

Formal Document: Appendix C, Part 1, Functional Process Improvement, DoD 8020.1-M (Draft) Change 1.

Memo: The roles and responsibilities of the Technical Integration Manager (TIM) are formally presented in Appendix A, Part 3, of DoD 8020.1-M (Draft) Change 1.

Technical Architecture Framework for Information Management (TAFIM)

Description: The TAFIM is the single technical architecture framework for the DoD information systems development and management. It provides the DoD-wide framework to manage multiple technical architecture initiatives. The TAFIM does not provide a specific system architecture. Instead, it provides the services, standards, design concepts, components, and configurations that can be used to guide the development of technical architectures that meet specific mission requirements.

References

Formal Document: <http://www.itsi.disa.mil/cfs/tafim.html>

Memo: The official version of the TAFIM is Version 2.0, except for Volume 7 (Adopted Information Technology Standards) which is Version 2.1. There is no Volume 5 (Program Manager's Guide for Open Systems) in Version 2.0. Volume 5 will be available in Version 3.0. Volume 7 is in WordPerfect format only. There are no plans to convert Volume 7 to MS WORD for Version 2.1. Volume 7 will be in MS WORD format in Version 3.0.

Formal Document: <http://www.dtic.dla.mil/c3i/tafim.html>

Memo: ASD(C3I) Memorandum, March 30, 1995, Subject: Technical Architecture Framework for Information Management (TAFIM), Version 2.0. The TAFIM provides direction to guide the evolution of DoD's information systems technical architectures to an open systems environment.

Formal Document: <ftp://ftp.itsi.disc.mil/pub/library/policies/tafim/pgMemo23.txt>

Memo: This June 23, 1994 Memorandum from the Assistant Secretary of Defense for Command, Control, Communications and Intelligence, ASD(C3I), affirms DoD's commitment to the Technical Architecture Framework for Information Management (TAFIM)

Formal Document: <ftp://ftp.itsi.disc.mil/pub/library/policies/tafim/pgMemo30.txt>

Memo: This March 30, 1995 Memorandum from the Assistant Secretary of Defense for Command, Control, Communications and Intelligence, ASD(C3I), reiterates DoD's commitment to the long range

goal of an open systems environment characterized by interoperable and cross-functionally integrated systems and portable/reusable software. All new DoD information systems development and modernization programs are to conform to the TAFIM.

Outputs

Standards-Based Technical Infrastructure for IS

Description: A common, multi-purpose, standards-based technical infrastructure underlies DoD's enterprise vision for information management (IM).

Mechanisms

Information Management Integration Project Teams

Description: Various information management integration project teams are assembled to effect any necessary integration of the information management function within the functional activity.

A34 INTEGRATE PEOPLE AND ORGANIZATIONAL STRUCTURES

Description

The purpose of this activity is to ensure that the human resources and organizational structures of the enterprise are aligned with the newly integrated missions and goals, plans and programs, and processes of the enterprise. People are the most important resource of any enterprise. They apply their knowledge and skills to manage and perform processes within and between functional activities. In an integrated enterprise, a cooperative culture exists between all levels of the organization and between all functional areas. Emphasis is placed on team building. Management motivates people by rewarding positive behavior that is aligned with enterprise direction. Cross-functional process improvements are managed and executed by cross-functional, multi-disciplinary teams such as an Integrated Product Team. Efficient and effective person-to-person communication is facilitated by an open environment that encourages "two-way" communications vertically and horizontally across the enterprise. Continual education and training is used to improve personal performance and to enrich job content. Non-traditional "flat" organization structures facilitate smaller distributed work groups oriented around performance of complete processes. Teams and individuals are empowered to innovate and improve their work supported by sophisticated information technologies, like multi-media conferencing and "groupware." Process improvement methods and practices

are imbedded in the enterprise through changes to culture, new job descriptions, new performance measurement systems, and rewards for achieving Defense objectives.

References

Formal Document: <http://www.dtic.mil:80/c3i/bprcd/3003s6.html>

Memo: Section 6 ("Organizational Change Management") of the DoD Framework for Managing Process Improvement is an excellent guide to the planning and implementation of an organizational change management program.

Inputs

Non-Integrated Organizational Structure

Description: A non-integrated organizational structure is one typically organized around a traditional hierarchy that no longer mirrors the functional or work process form of an enterprise.

Controls

Integrated Values, Missions, Visions, Goals, Objectives, Measures of Performance, and Programs

Description: The set of *integrated* organizational values, missions, visions, goals, objectives, measures of performance, and programs of the enterprise serves as the overarching framework in which the human resources and organizational structures of an enterprise are integrated.

Principal Staff Assistants (PSAs)

Description: OSD PSAs are responsible for implementing the DoD information management program within their functional areas and activities. Their focus is from a functional perspective. PSAs develop functional objectives for each of their functional areas and activities. In addition, they provide guidance and analytical support for improving processes, data, and supporting information systems to satisfy those objectives. PSAs are also responsible for implementing changes to streamline operations and improve cost-effectiveness. PSAs designate FAPMs to assist in this implementation.

Framework for Managing Process Improvement

Description: The framework describes twenty-five specific steps, organized into six phases, which guide functional users through the improvement process from mission validation to post-implementation assessment. The six phases are:

- (1) Strategy and Business Planning

- (2) Process Improvement
- (3) Change Management: Organizational
- (4) Change Management: Technical
- (5) Enterprise Engineering
- (6) Project Execution

References

Guidelines: <http://www.dtic.dla.mil/c3i/bprcd/3003.html>

Memo: This is an excellent Framework for Managing Process Improvement. It consists of a comprehensive methodology for performing process improvement projects and is applicable in all functional areas in the Department of Defense. It supports three levels of improvement efforts that are often included under the definition of functional process improvement (FPI): continuous process improvement, business process redesign, and business process reengineering.

Outputs

Integrated Organizational Structure

Description: An integrated organizational structure is one in which both internal organizations (e.g., functional activities) and external organizations (e.g., trading partners and customers) are integrated within the "extended enterprise." Core competencies and human resources are independent of functional organizations and leveraged across services and product lines.

Mechanisms

Reorganization Task Force

Description: An reorganization task force (or other suitable organization element) is responsible for effecting the necessary organizational changes to achieve the functional integration that is the goal of this major activity.

A35 INTEGRATE FINANCIAL RESOURCES

Description

Integrated financial information is essential for managing the DoD, ensuring proper external oversight, and satisfying statutory requirements. In the integrated enterprise, financial policies, practices, and procedures are standardized, and are supported by shared, standard data, and common information systems. Financial and accounting information is timely and accurate, and is made available to all potential users, subject to the constraints of an organization's right to control access to privileged information, national security,

and respect for the personal financial privacy of the individual. Simply put, this means that responsible managers have direct access to the financial information they need to do their jobs. There is an integration of finance and other functions, where appropriate, so that duplication of reporting is avoided, the best "source" data is used, and managers can obtain a total view of the resource used to satisfy their mission and tasks. Quality, cost effective, integrated financial services are made available, when and where needed, to all DoD customers and users. The DoD has as migrated to Department-wide standardized financial systems that support improved finance and accounting processes.

References

Inputs

Non-Integrated Financial Resources

Description: In an environment in which financial resources are not integrated, there is a duplication of financial information, there is little sharing of financial information between organizational components, and the financial systems that automated financial processes are often redundant and "stove-piped" to support a single functional activity.

Controls

Principal Staff Assistants (PSAs)

Description: OSD PSAs are responsible for implementing the DoD information management program within their functional areas and activities. Their focus is from a functional perspective. PSAs develop functional objectives for each of their functional areas and activities. In addition, they provide guidance and analytical support for improving processes, data, and supporting information systems to satisfy those objectives. PSAs are also responsible for implementing changes to streamline operations and improve cost-effectiveness. PSAs designate FAPMs to assist in this implementation.

Integrated Values, Missions, Visions, Goals, Objectives, Measures of Performance, and Programs

Description: The set of *integrated* organizational values, missions, visions, goals, objectives, measures of performance, and programs of the enterprise serves as the overarching framework in which the financial resources of an enterprise are integrated.

Outputs

Integrated Financial Resources

Description: Integrated financial resources means that financial and accounting information is timely and accurate, and is made available to all potential users, subject to all usual constraints. The finance function is integrated with other functions. Standardized financial systems support the finance and accounting processes throughout DoD.

Mechanisms

Financial Integration Task Force

Description: A financial integration task force (or other suitable organization element) is responsible for implementing a standardized financial system and other financial process changes necessary to achieve the financial integration that is the goal of this major activity.

A4 ENGINEER FUNCTIONS

A5 MANAGE CHANGE

A6 EVALUATE PERFORMANCE

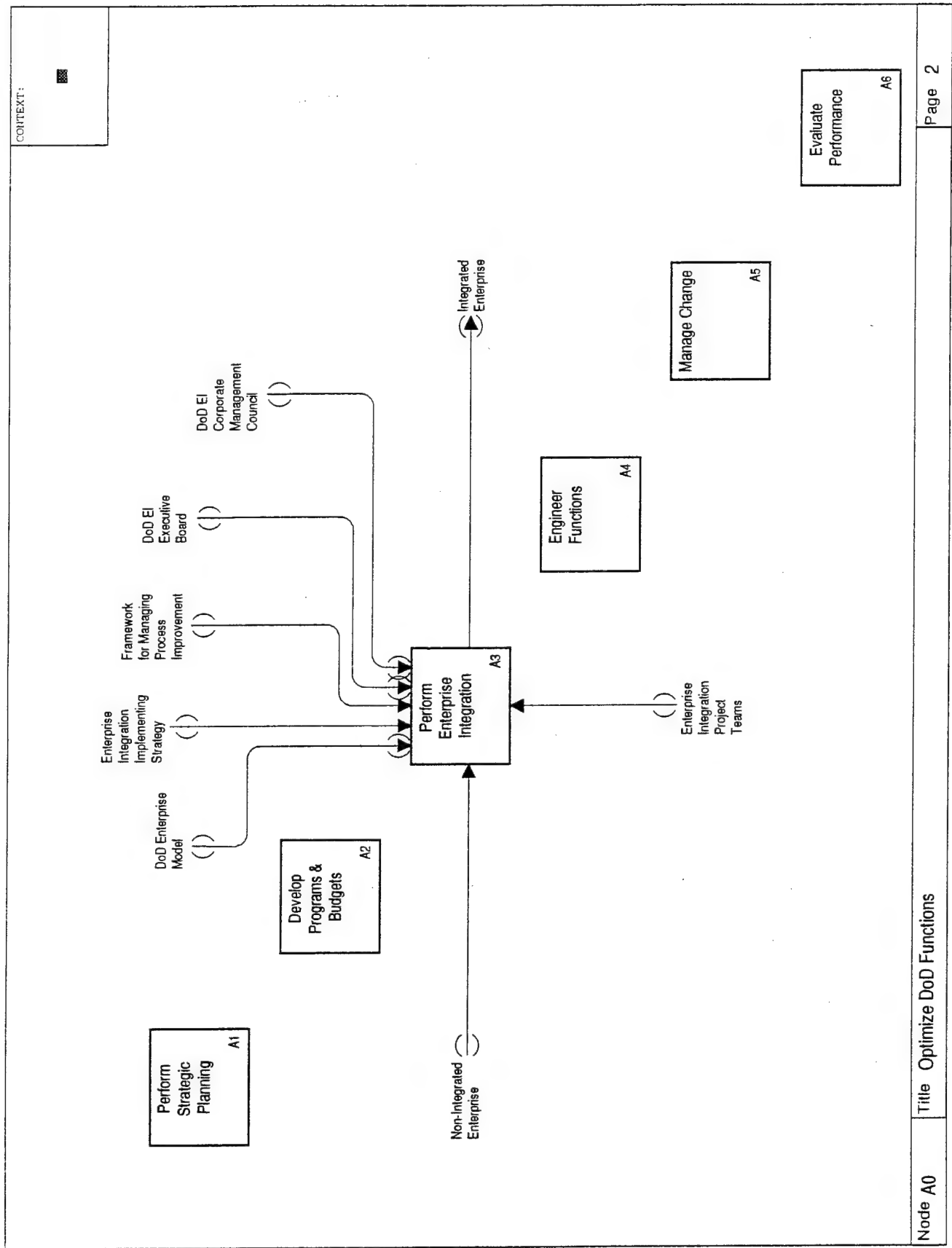
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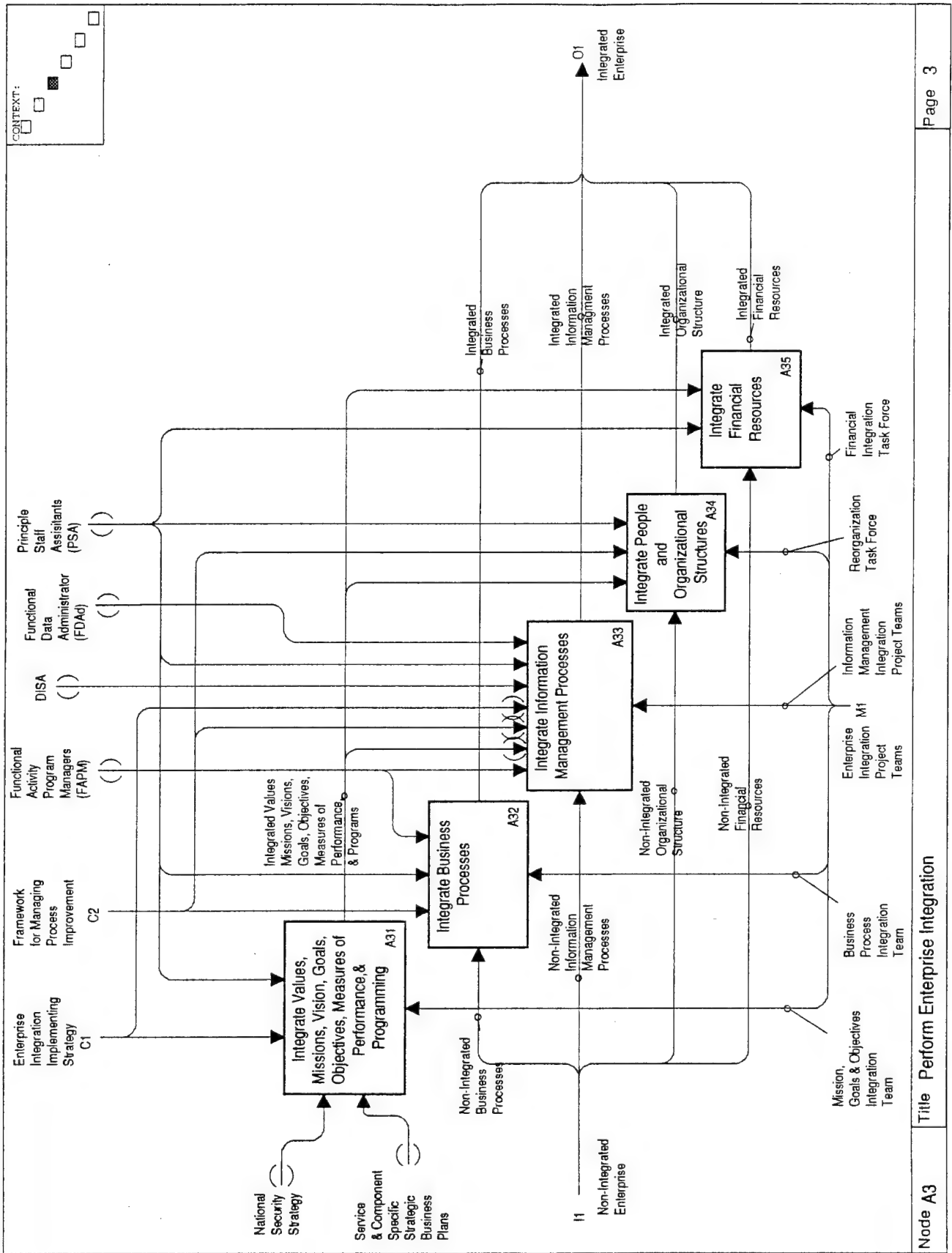
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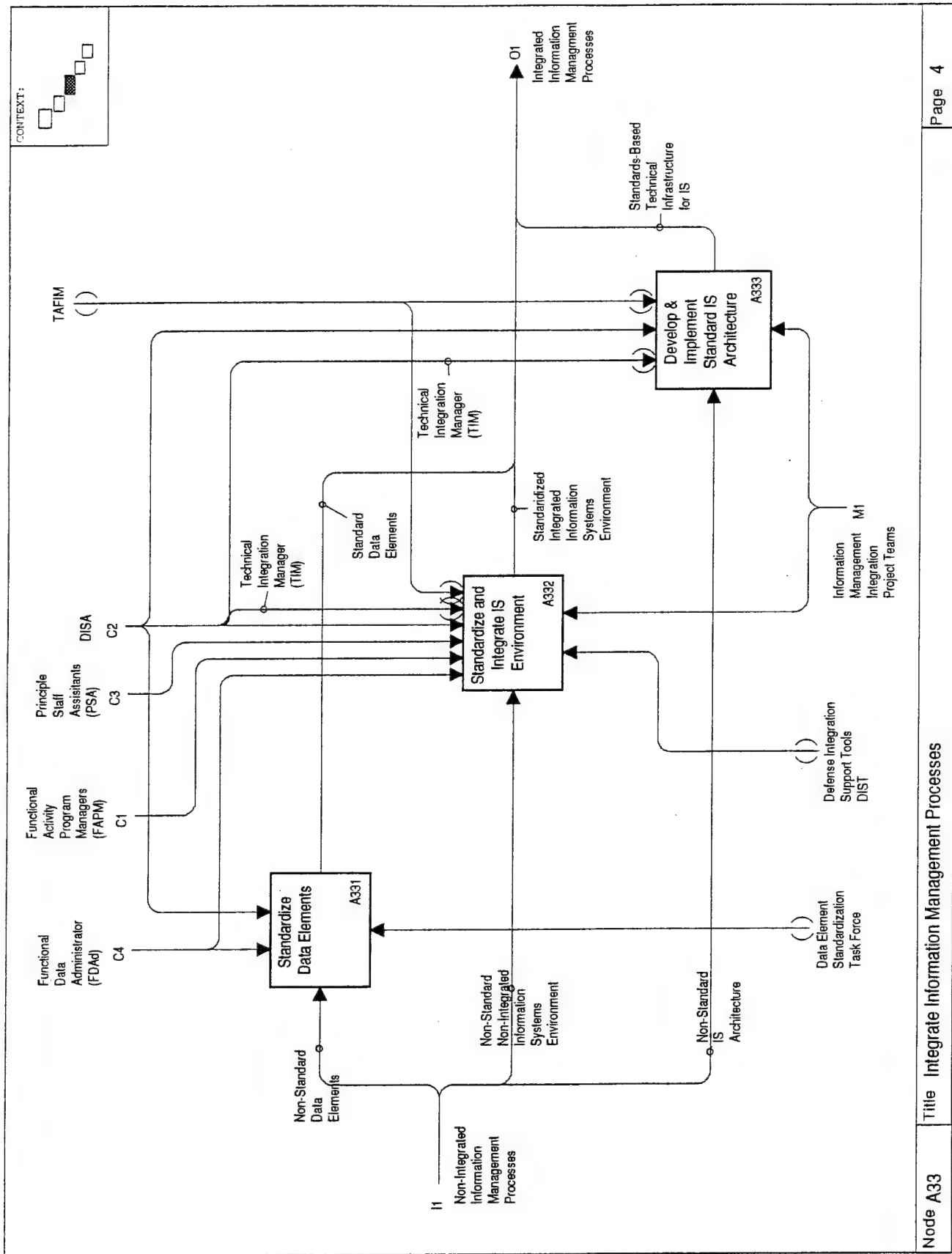
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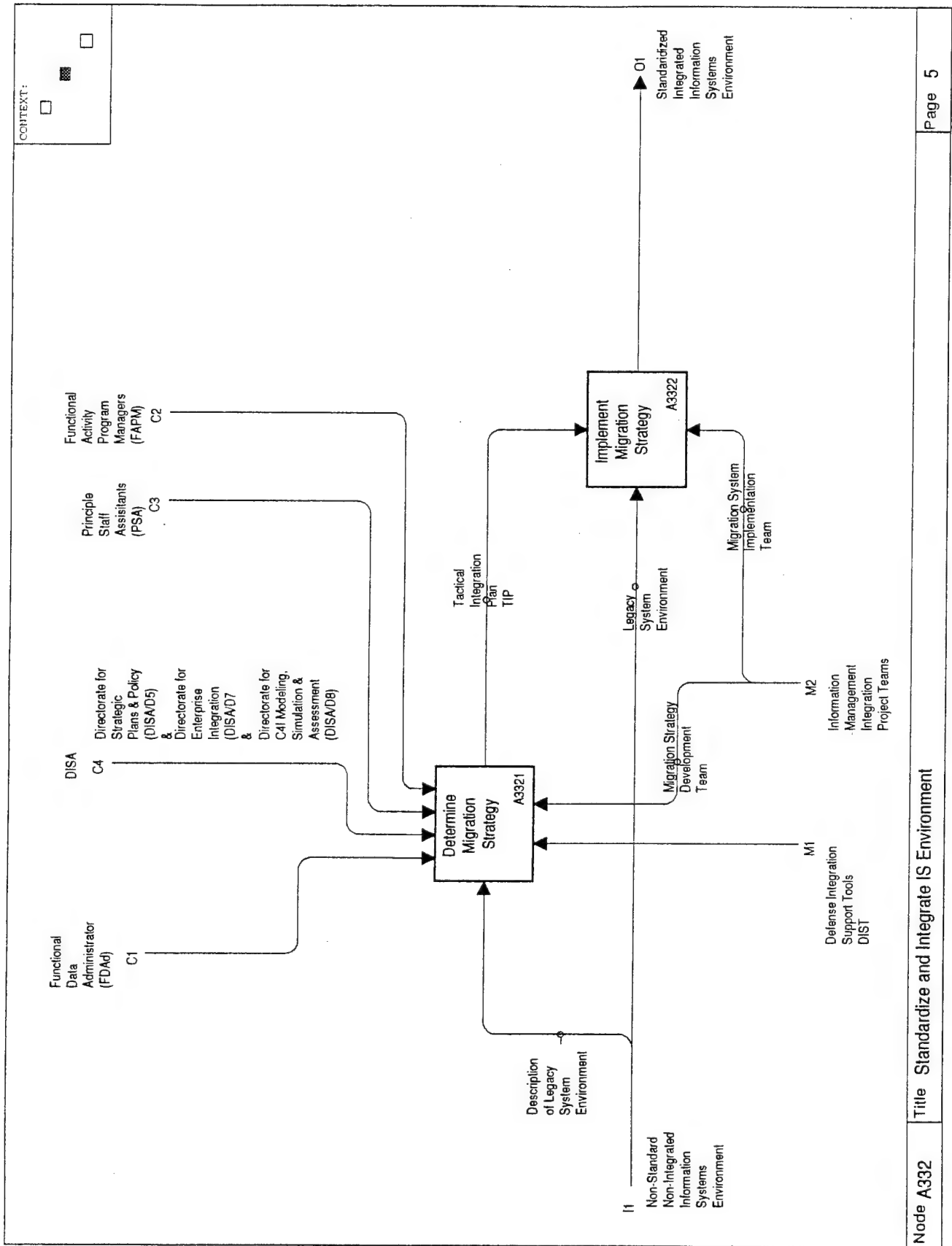
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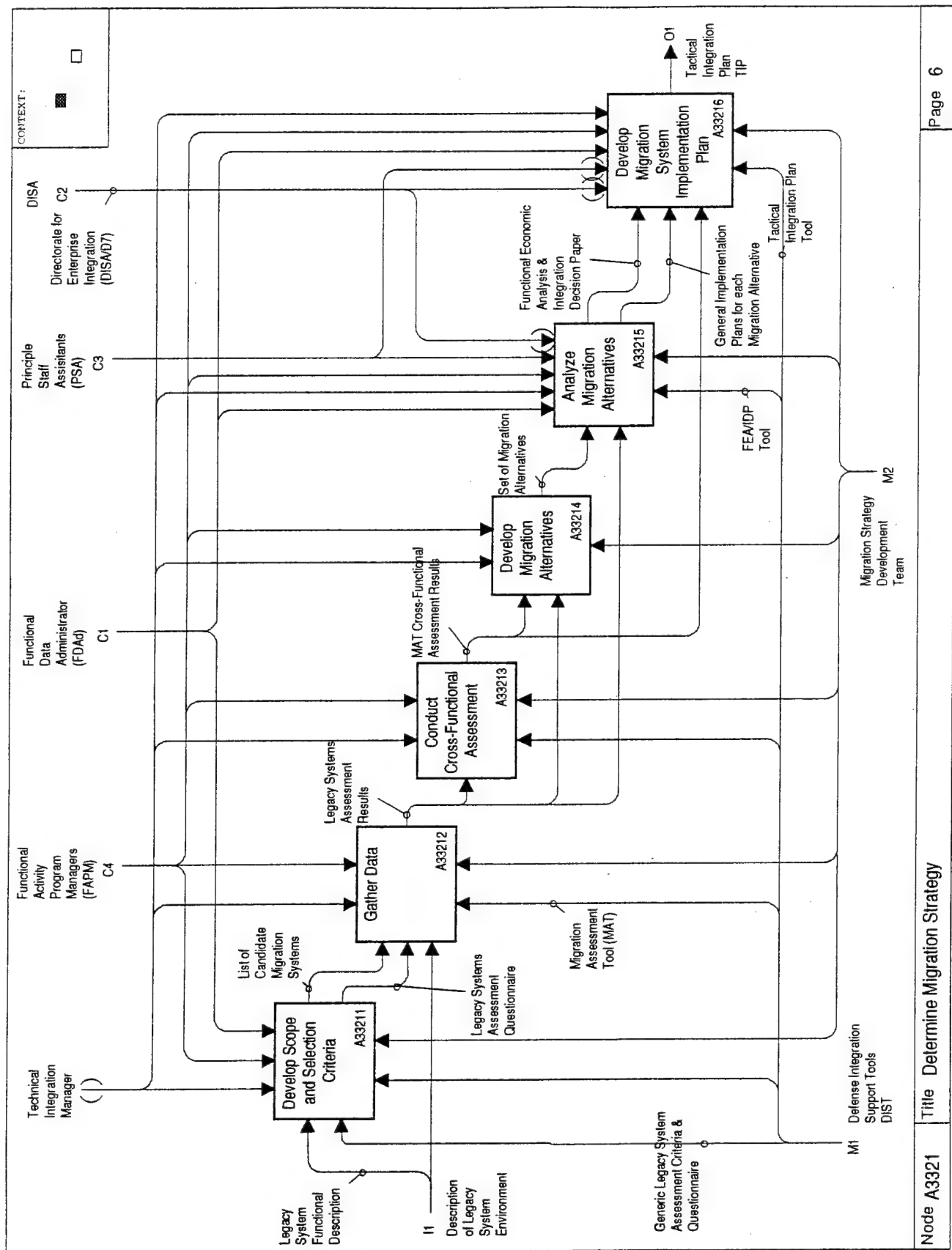
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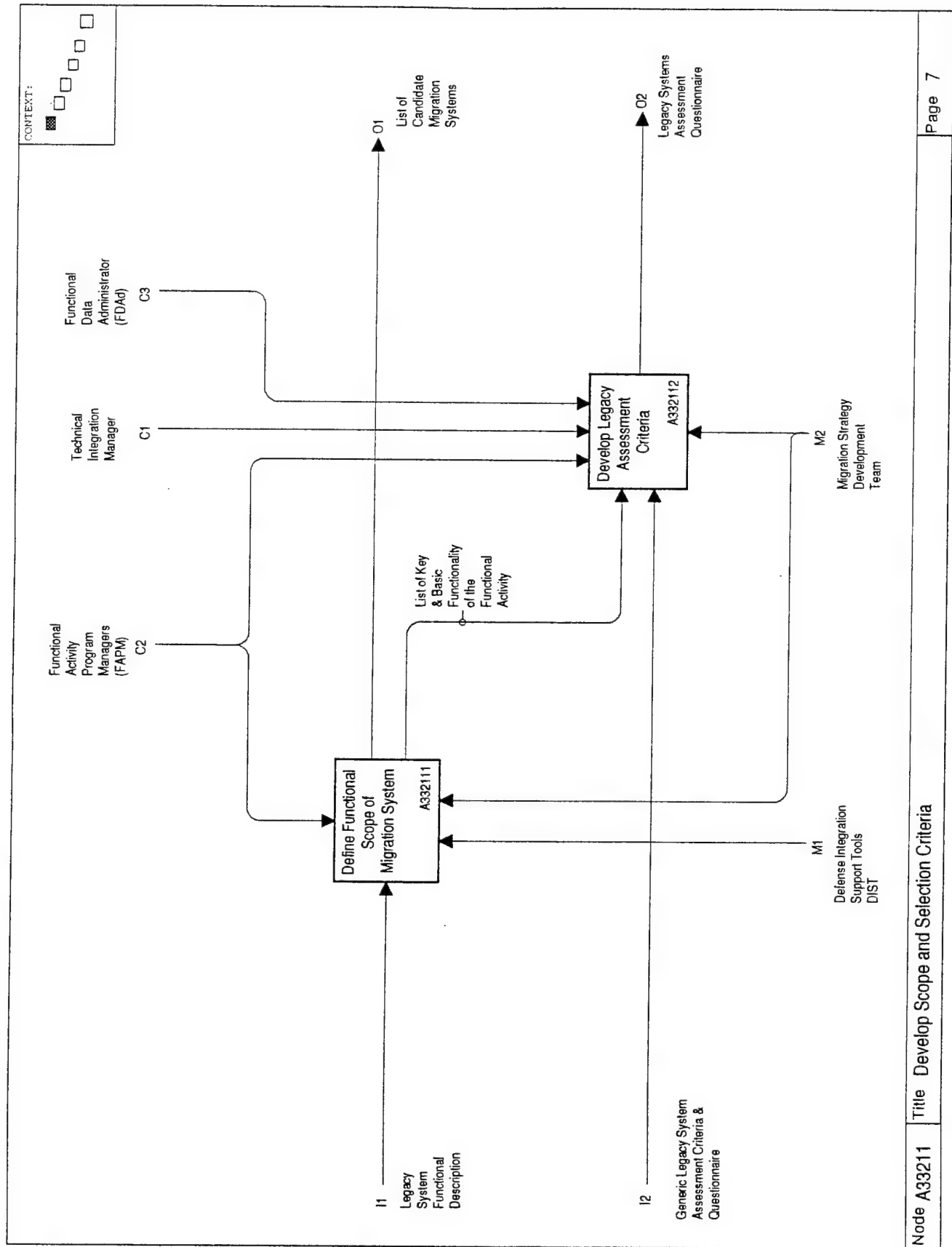


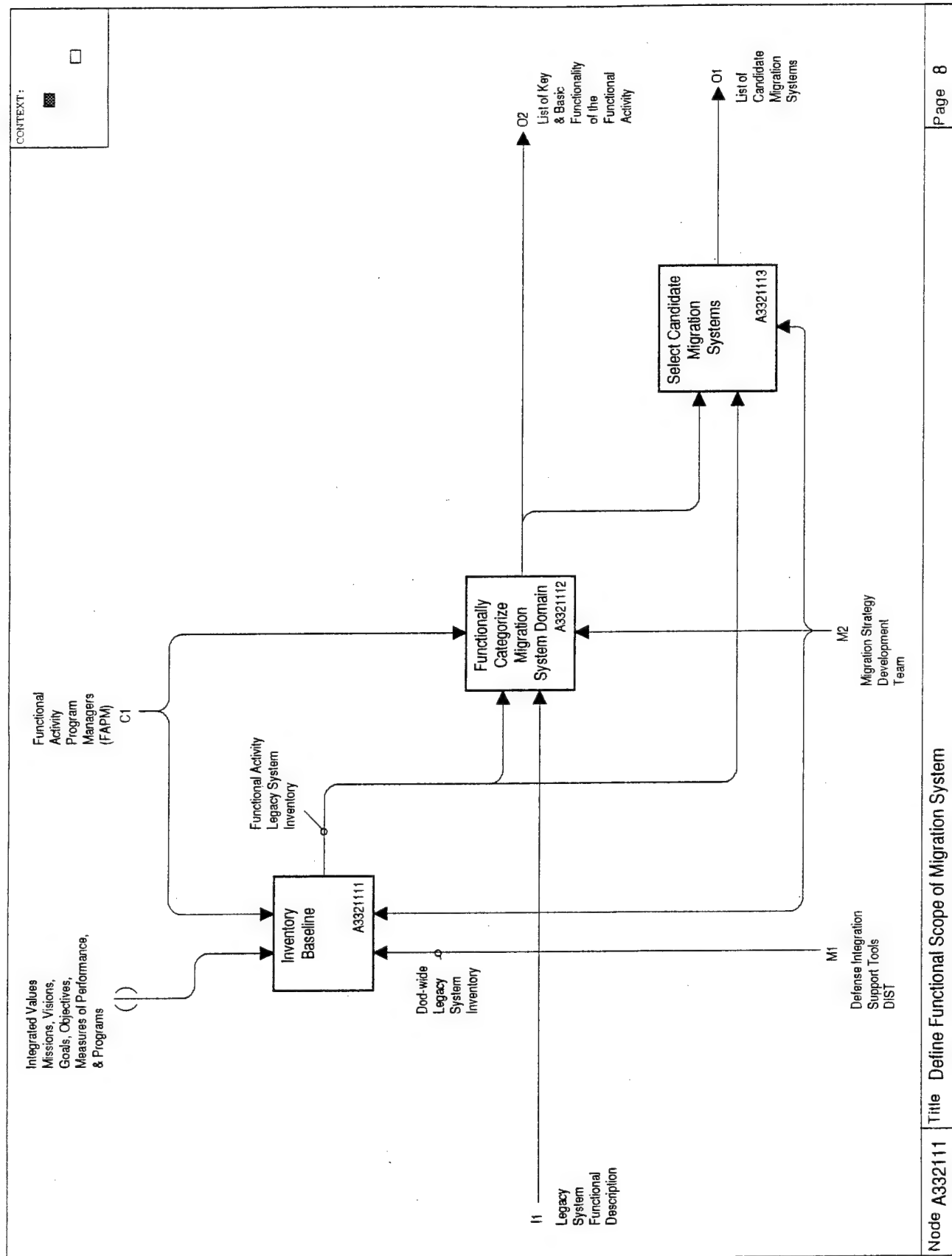


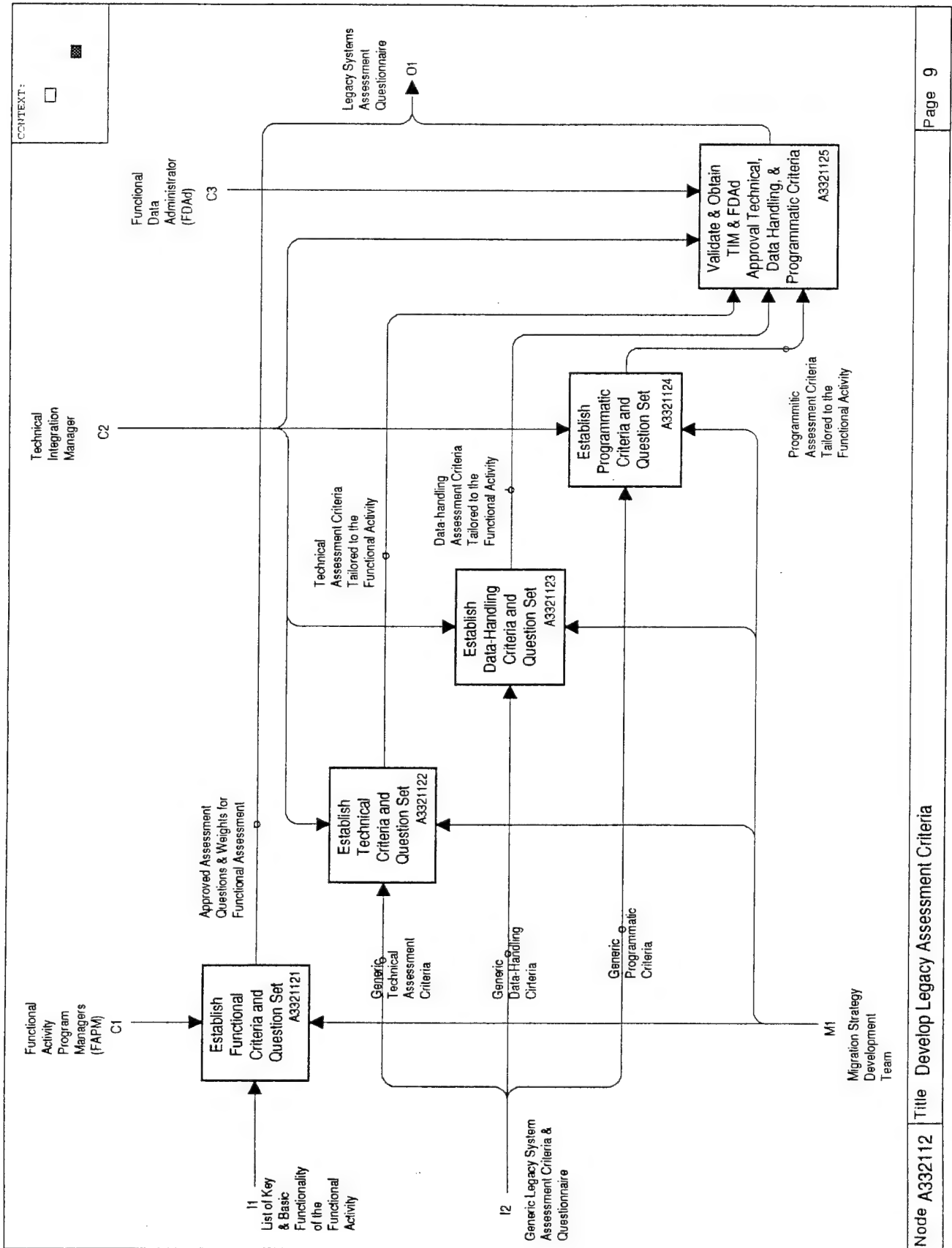


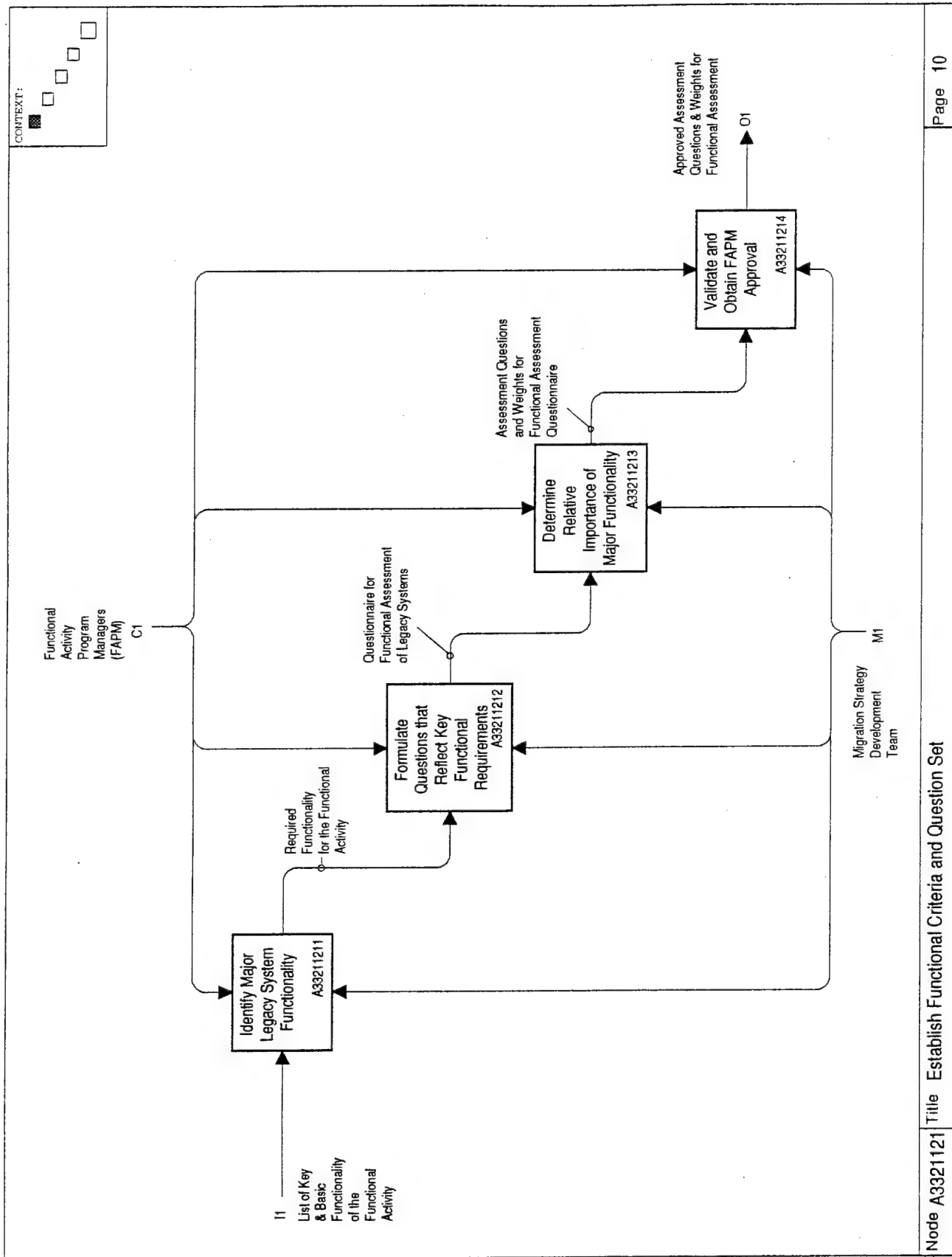


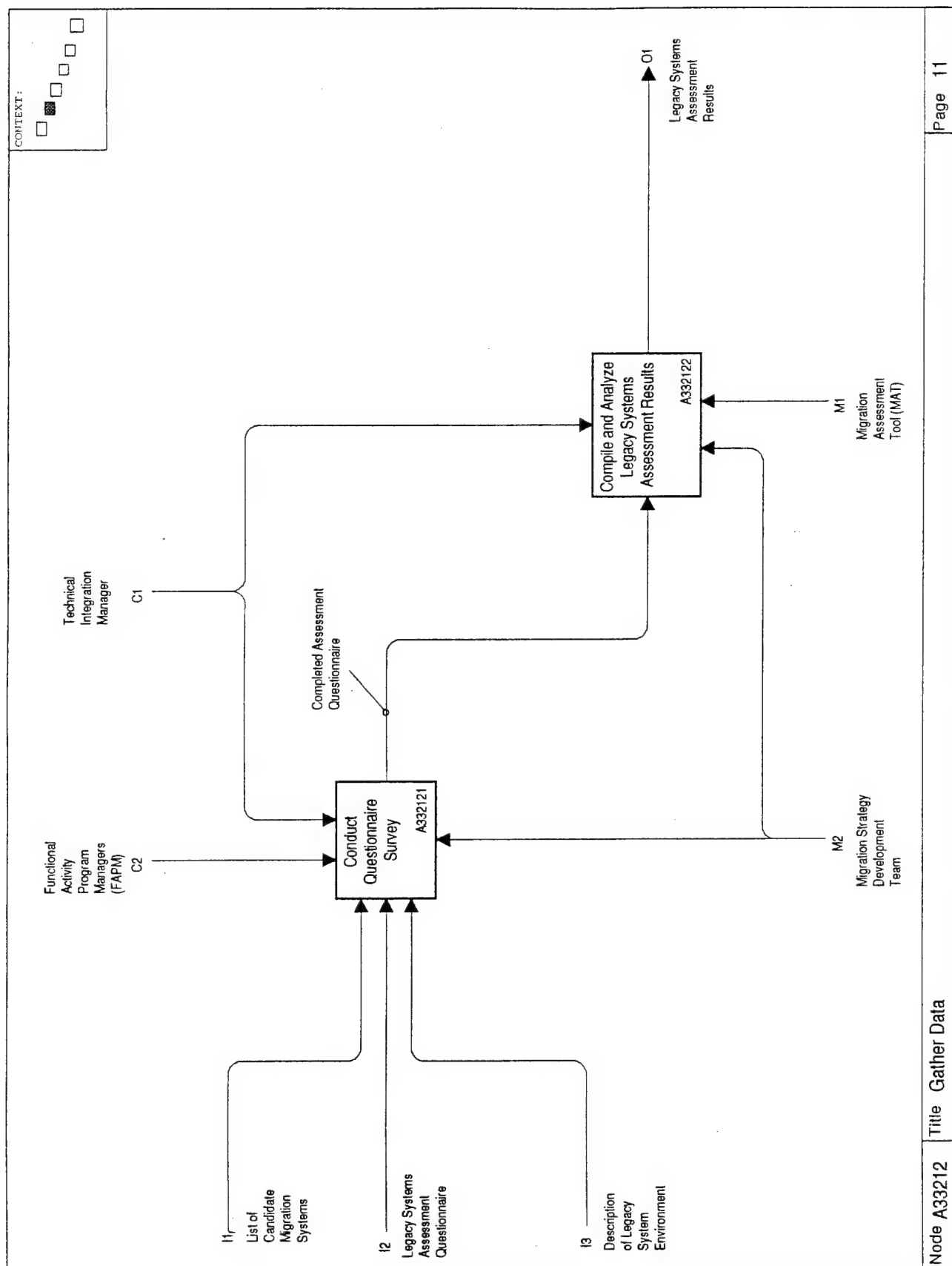


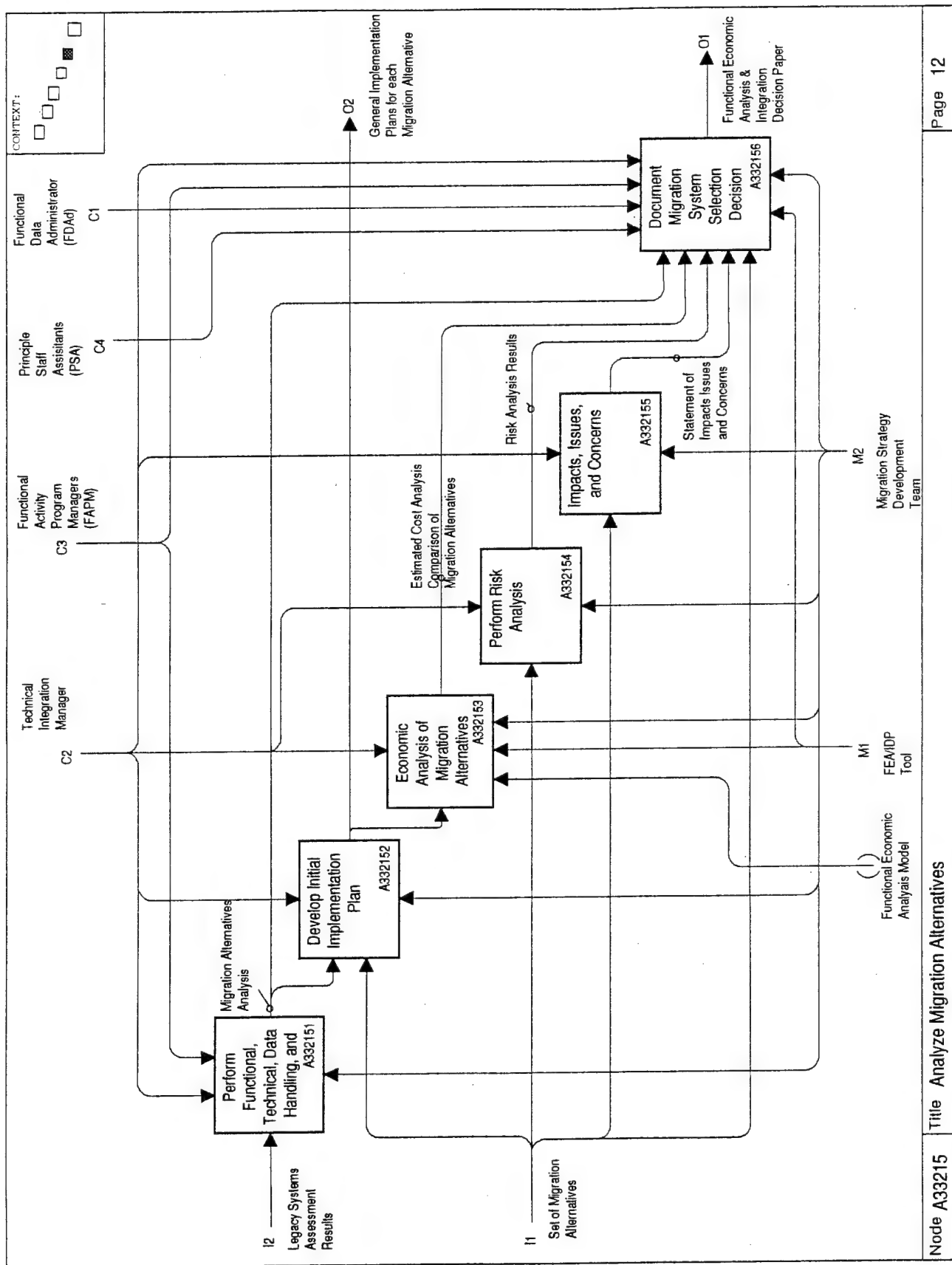


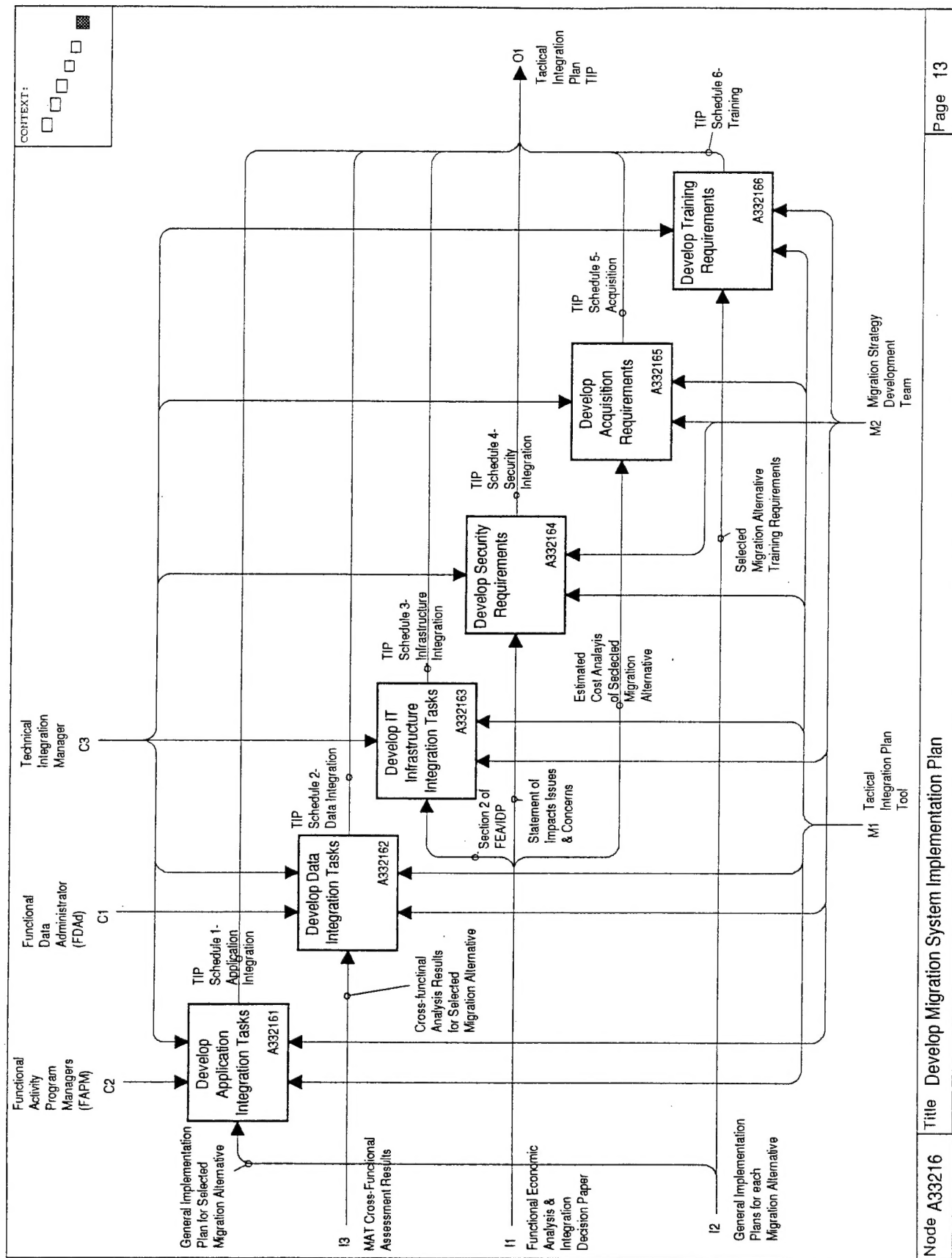


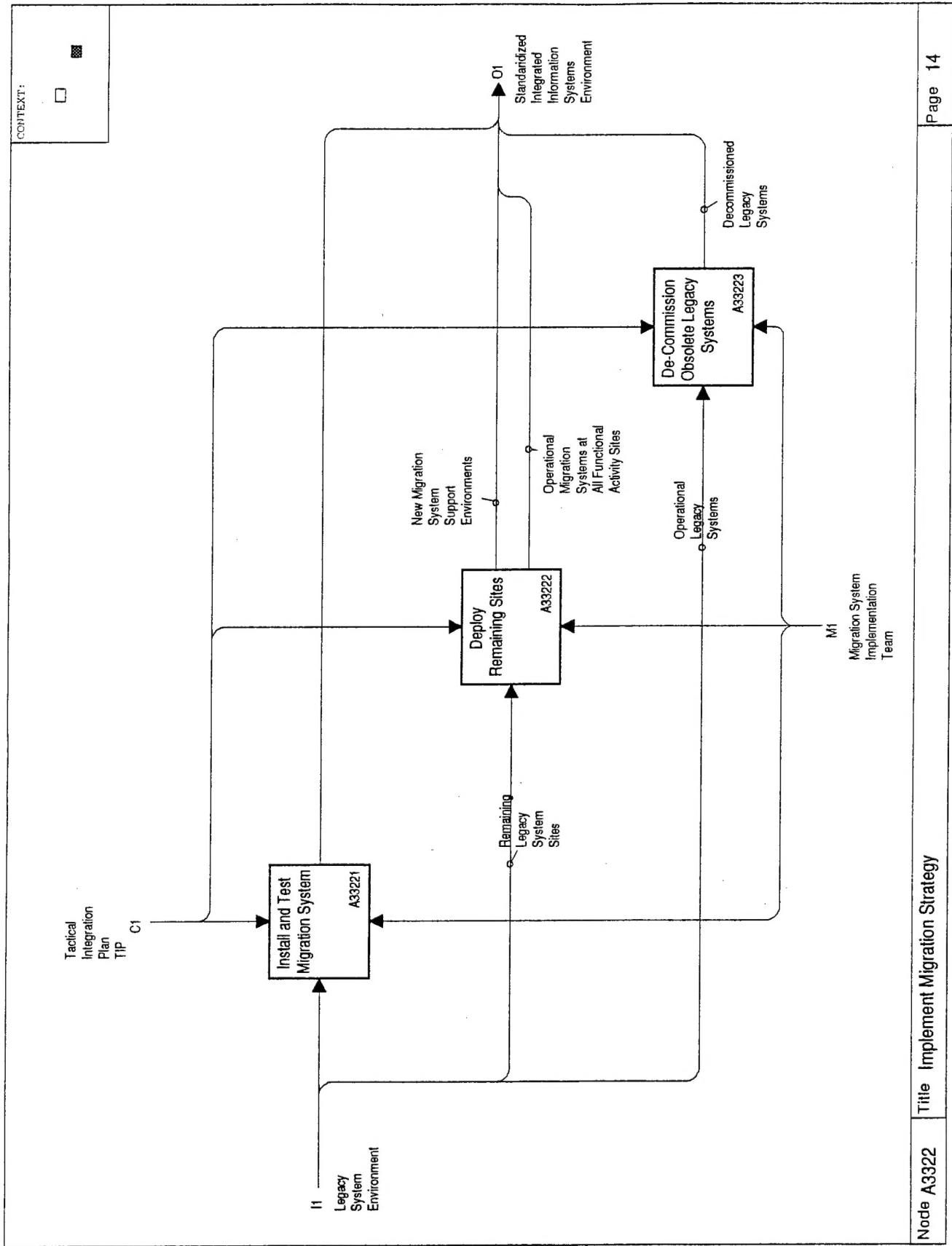


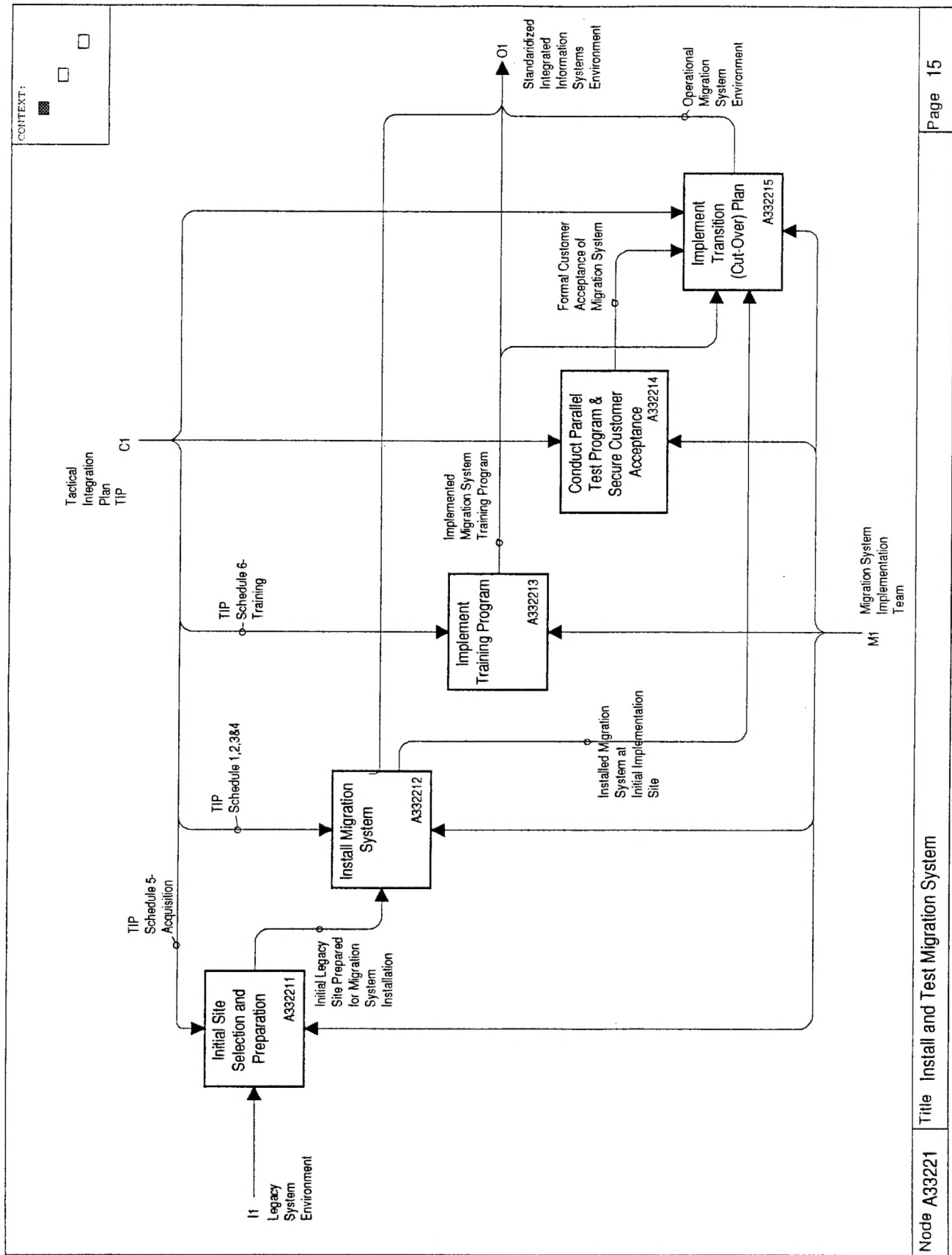












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13. ABSTRACT (Maximum 200 words) Enterprise integration is the process of harnessing diverse resources into an optimum whole to achieve the goals and missions of the enterprise. The success of the strategy depends in part on the knowledge of individual DoD managers tasked with its execution. The Process Management Tool (PMT) was designed to help DoD process managers by providing an automated way for them to access a useful body of existing knowledge (the knowledgebase) about some major process. The knowledgebase consists of a work breakdown structure and a set of references. This document contains a text extract of the Perform Enterprise Integration process, one of six major activities that make up the entire Optimize DoD Functions process in the PMT.				
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